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TRANSPORTATION OF AGRICULTURAL PRODUCTS IN THE UNITED STATES 1920-JUNE 1939

A Selected List of References
Relating to the Various Phases of Railway,
Motor, and Water Carrier Transportation

PART 1. GENERAL TRANSPORTATION AND TRANSPORTATION OF AGRICULTURAL PRODUCTS

Compiled by Esther M. Colvin
Under the Direction of Mary G. Lacy, Librarian
Bureau of Agricultural Economics

Washington, D. C.
November 1939

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CONTENTS

	Page
Foreword	VII-VIII
Sources Consulted	IX-X
General Transportation	1-69
Competition Between Carriers	34-42
Railroads vs. Trucks	37-41
Railroads vs. Waterways	41-42
Containers	42-45
Coordination of Transportation Facilities	46-57
Rail and Motor Truck	48-56
Rail and Water	57
Freight Rates	57-59
State and Federal Regulation	59-69
Agricultural Commodities	69-250
General	69-101
Freight Rates	87-101
Cotton	101-105
Dairy Products	105-121
Freight Rates	116-117
Tank and Container Cars and Trucks	118-121
Fruits and Vegetables	121-192
General	121-151
Containers	138-142
Freight Rates	143-144
Loss and Damage in Transit	144-146

Page

Agricultural Commodities (Continued)

Fruits and Vegetables (Continued

General (Continued)

Refrigeration..... 146-149

Terminals..... 149-151

Fruits..... 151-184

General..... 151-164

Containers..... 156-158

Freight Rates..... 158-159

Loss and Damage in Transit..... 159-160

Refrigeration..... 160-163

Terminals..... 163-164

Apples..... 164-171

Containers..... 167-171

Avocados..... 171

Bananas..... 171-172

Berries..... 172-173

Cherries..... 173-174

Citrus Fruits..... 174-178

Figs..... 178

Grapes..... 178-179

Melons..... 179-181

Peaches..... 181-182

Pears..... 182-184

Plums..... 184

Prunes..... 184

Page

Agricultural Commodities (Continued)

Fruits and Vegetables (Continued)

Vegetables..... 184-192

General..... 184-187

Asparagus..... 187

Cabbage..... 188

Cauliflower..... 188

Celery..... 188

Cucumbers..... 188

Escarole..... 189

Lettuce..... 189

Onions..... 189

Potatoes..... 189-192

Sweet Potatoes..... 192

Tomatoes..... 192

Grain..... 192-210

General..... 192-201

Freight Rates..... 201-210

Honey and Bees..... 210-212

Livestock, Meats and Wool..... 212-240

General..... 212-223

Freight Rates..... 224-230

Loss and Damage in Transit..... 230-233

Cattle..... 233-234

Hogs..... 234-238

Page

Agricultural Commodities (Continued)

Livestock, Meats and Wool (Continued)

Horses..... 238

Sheep, Lambs and Wool..... 238-240

Nuts..... 241

Poultry and Eggs..... 241-249

General..... 241-242

Eggs..... 242-247

Poultry..... 247-249

Sugar Cane..... 249-250

Tobacco..... 250

FOREWORD

This bibliography was designed to meet a special need which arose through the designation by Secretary Wallace of the Bureau of Agricultural Economics as the agency to perform the research work in connection with the administration of Section 201 of Title II of the Agricultural Adjustment Act of 1938, relating to transportation.

Although the interest of workers in the Bureau of Agricultural Economics lies mainly in the transportation of agricultural commodities, material relating to certain phases of transportation in general and to the agencies of transportation have been included.

Because of the large volume of material, the bibliography has been divided into two parts. Part I contains references relating to the transportation of agricultural commodities, and in addition references relating to transportation in general and to certain of its phases - competition between carriers, coordination of transport facilities, containers, freight rates, and State and Federal regulation of transport facilities. The references relating to agricultural commodities are classified according to commodity.

Part II contains references relating to three kinds of transportation - highway, railway, and waterway. Under the general sections of each have been included selected references to some of the more important books and periodical articles on these subjects.

The section on highway transportation includes material relating to motor truck transportation and also to the highways themselves. References may be found relating to financial policies, Government promotion and financing, safety, adequacy and economy of service, State and Federal regulation, taxation, terminals, and trucking rates. Only a relatively small portion of the general material relating to highways has been included.

The section covering railway transportation includes, in addition to references relating to railway transportation in general, material on consolidation of railways, financial policies of the roads, freight rates, Government promotion and financing (including the pros and cons of government ownership, land grants and subsidies), safety, adequacy and economy of service (including general references, references on container cars, electrification, express, loss and damage in transit, parcel post shipping, and refrigerator cars), taxation, terminals, and volume, density, and character of traffic.

Under water transportation may be found general references, references relating to coastal waterways, inland waterways (including the Mississippi River, the New York State Barge Canal, and the St. Lawrence Water-

way), ocean transportation with references on the American merchant marine, ocean freight rates, the Panama Canal, State and Federal regulation, and terminals.

Material relating to passenger traffic has not been included as such, as the bibliography was designed to deal entirely with the literature of freight transportation.

References relating to certain phases of transportation have been omitted. The labor problems of the carriers have not been touched upon. Nor have the problems of maintenance, construction and equipment, with a few exceptions. Only the more general references relating to regulation and laws of the carriers have been included. Material relating to air transportation has been omitted, since the airplane does not, as yet, play any appreciable part in the transportation of agricultural products.

In general, throughout the bibliography, references to the more important books and periodicals only have been included. Law journals have not been searched as a class although a number of articles from such publications will be found in the bibliography. A list of trade journals and other periodicals dealing with the subject of transportation is appended.

The user should bear in mind that the bibliography was designed to meet a special need, and was not intended as a complete bibliography on the subject of transportation.

Part III consists of a detailed author and subject index.

The compiler is indebted to Dr. Ralph L. Dewey of the Division of Marketing and Transportation Research for material aid in the classification of the bibliography and to Mr. Clifford C. Matlock of the same Division for his help.

Mary G. Lacy, Librarian
Bureau of Agricultural Economics,
U. S. Department of Agriculture

November 1939.

SOURCES CONSULTED

Card catalogues of the following libraries:

U.S. Department of Agriculture
U.S. Department of Agriculture, Bureau of Agricultural Economics
U.S. Department of Agriculture, Bureau of Public Roads
Bureau of Railway Economics (Only subjects relating specifically to agricultural products)

Indexes:

Agricultural Economics Literature; issued by U. S. Department of Agriculture, Bureau of Agricultural Economics, Washington, D.C., v.1, 1927 to v.13, no.6, June 1939; also its predecessor The Library Supplement, nos. 1 to 38, January 16, 1923 to Dec. 28, 1926.

Agricultural Index; issued by the H.W. Wilson Co., New York, 2d. 3 year cumulation, v.6, 1919-1921 to v.24, no.6, June 1939.

Public Affairs Information Service. Bulletin; issued by Public Affairs Information Service, New York, v.6, 1920 to v.25, no.37, June 17, 1939.

Miscellaneous

American academy of political and social science. Annals. Philadelphia. v.87, no.176, January 1920 to v.203, May 1939.

American Economic Review; issued by the American Economic Association, Menasha, Wis., v.10, 1920 to v.29, no.2, June 1939; also the American Economic Review Supplement, v.10-11, 1920-1921, to v.28, 1938.

Economic Journal; issued by the Royal Economic Society, London, v.30, 1920 to v.49, no.194, June 1939.

Gill, Minna. Freight rates and agriculture; a list of references. 36pp., processed. Washington, D.C., U.S. Department of agriculture, Bureau of agricultural economics, November 1927.

Harvard Business Review; published for the Graduate School of Business Administration, Harvard University, at York, Pa., v.1, no.1, October 1922 to v.17, no.4, Summer 1939.

Journal of Farm Economics; issued by the American Farm Economic Association, Menasha, Wis., v.1, no.1, June 1919 to v.20, no.2, May 1939.

Journal of Land and Public Utility Economics; published for the Institute for Research in Land Economics and Public Utilities by the A.W. Shaw Company, Cass, Huron and Erie Streets, Chicago, Illinois, v.1, 1925 to v.15, no.2, May 1939.

Journal of Political Economy; published by the University of Chicago Press, Chicago, Ill., v.28, 1920 to v.47, no.3, June 1939.

Quarterly Journal of Economics; published by Harvard University Press, Cambridge, Mass., v.34, (November 1919-August 1920) to v.53, no.3, May 1939.

Railway Age; published by Simmons-Boardman Publishing Corporation, Philadelphia, v.68, no.1, January 1920 to v.106, no.25, June 24, 1939.

Social science research council. Research in transportation in relation to agriculture. Scope and method. Prepared under the direction of the Advisory Committee on social and economic research in agriculture. John D. Black, editor. Social Sci. Research Counc. Bull. 8, 94pp. New York, 1933. 281.29 Sol

Bibliography, pp.6-12.

Southern Economic Journal; issued by the Southern Economic Association and the University of North Carolina, Chapel Hill, N.C., v.1, no.1, October 1933 to v.5, no.4, April 1939.

Traffic World; published by the Traffic Service Corporation, Chicago, Ill., v.25, no.1, January 1920 to v.63, no.25, June 24, 1939.

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GENERAL TRANSPORTATION

1. Academy of political science, New York. Transportation development in the United States. A series of addresses and papers presented at the annual meeting of the Academy of political science, November 12, 1936. Ed. by John A. Krout. Acad. Polit. Sci. Proc. 17(2): 137-272. New York, January 1937. 280.9 Acl

Part I, Railroads and the National Economy, contains Introduction, by William L. Ransom, pp.137-140; The relation of airways, highways and waterways to the nation's transportation system, by William J. Cunningham, pp.141-149; The changing position of the railroads, by Frederick E. Williamson, pp.151-161; Industry's interest in the railroads, by Virgil Jordan, pp.172-180; Discussion: Railroads and the national economy, by Winthrop M. Daniels, pp.182-185.

Part II, The Railroad Situation Critically Analyzed, contains Introductory remarks, by Eliot Wadsworth, pp.186-188; Restrictive legislation, rates, wages and taxation, by Robert V. Fletcher, pp.189-201; Competition within and without the railroad industry, by Thomas F. Woodlock, pp.202-213; Railroads - management and financial policies, by Henry S. Sturgis, pp.215-223; The investors' interest in the railroads, by Sterling Pierson, pp.224-231; Discussion: The railroad situation critically analyzed, by Carson S. Duncan, pp.232-234.

Part III, Transportation Problems and Suggestions Toward a Constructive Solution, contains Introduction, by Thomas W. Lamont, pp.235-238; Transportation problems and suggestions toward a constructive solution, by Joseph B. Eastman, pp.239-249; Consolidation and coördination problems, by Samuel T. Bledsoe, pp.250-262; Aspects of the American railroad problem, by Thomas W. Lamont, pp.263-272.

2. Aishton, R.H. The public's interest in transportation. Amer. Gas Assoc., Proc. (1927)9: 891-894. New York, 1928. Libr. Cong. TP700.A3

"The subject assigned to me, 'The Public's Interest in Transportation', calls to my mind these inquiries. First, - Why should the public be interested in the subject of transportation? Second, - In what phase of transportation is the public interested? Third, - What significance is there in the fact that there is a public interest here?"

Mr. Aishton attempts to answer those inquiries.

3. Aitchison, Clyde B. Transportation parallelism during the last one hundred years. Social Sci. 6(3): 244-254. July 1931. 280.8 So16
Compares transportation development in the United States with that of Great Britain.

4. Alexander, J. W. The problem of transportation in the United States. U. S. Dept. Com., Bur. Foreign and Dom. Com. Com. Repts. (1920) no. 288, pp. 1059-1064. Dec. 8, 1920. 157.7 C76D
This article relates to the insufficiency of railroad facilities and the necessity for the improvement of inland waterways and port facilities.

5. Allred, C. E., Atkins, S. W., and Hendrix, W. E. Human and physical resources of Tennessee. Chapter XIV. Transportation. Chapter XV. Communication. Tenn. Agr. Expt. Sta. Agr. Econ. and Rural Sociol. Dept. Monog. 63, pp. I-IV, 222-263, processed. Knoxville, 1937. 173.2 W89Co

6. Ambler, Charles Henry. A history of transportation in the Ohio Valley; with special reference to its waterways, trade, and commerce from the earliest period to the present time. Glendale, Calif., A. H. Clark co., 1932. 277.12 Am1
Partial contents: The Ohio River; The boatmen and their craft; The boatmen as nation builders; Shipbuilding on the inland waters; The first steamboats west of the Alleghanies; The day of canals and turnpikes; Railroad versus river; The Civil War period; Post-bellum days to 1900; Commercial decadence; Recent years on the rivers.

7. American academy of political and social science. Banking and transportation problems. An examination of the banking system, the monetary policy, and the transportation system of the United States, with an emphasis on fundamental reforms. Amer. Acad. Polit. and Social Sci. Ann. v. 171, 313pp. Philadelphia, January 1934. 280.9 Am34
Part II, The Reorganization of the Transportation System of the United States, includes the following articles: The recent past and immediate future of the railways, by Julius H. Parmelee, pp. 155-159; Railroad operation and services, by Elisha Lee, pp. 160-165; Railroad consolidation, by W. W. Atterbury, pp. 166-171; Problems of government ownership and operation of railroads, by Emory R. Johnson, pp. 180-184; Railroad mileage freight rates, by J. Haden Alldredge, pp. 185-191; The American merchant marine, by R. J. Baker, pp. 192-197; Inland waterway transportation - a national problem, by T. Q. Ashburn, pp. 198-203; Transportation on the Great Lakes, by Newton D. Baker, pp. 204-210; Intercoastal shipping, by G. Lloyd Wilson and Hobart S. Perry, pp. 211-216; Revenue for highway construction and maintenance, by C. S. Duncan, pp. 244-252; Constructive governmental supervision of motor transport, by J. Paul Kuhn, pp. 253-262; Government regulation of railroad competitors, by Alexander H. Elder, pp. 263-267; Coördination in transportation: a national economic problem, by Marvin L. Fair and G. Lloyd Wilson, pp. 268-276.

8. American academy of political and social science. Railroads and government. Amer. Acad. Polit. and Social Sci. Ann. v. 187, 264pp. Philadelphia, September 1936. 280.9 Am34

Partial contents: The significance of transportation to civilization, by William Mather Lewis, pp. 1-6; Transportation and economic planning, by Charles L. Raper, pp. 7-15; The price of open gateways, by John R. Turney, pp. 22-26; The freight container as a contribution to efficiency in transportation, by Robert C. King, George M. Adams, and G. Lloyd Wilson, pp. 27-36; Simplification of railroad regulation, by H. G. Taylor, pp. 49-56; The regulation of transportation rates, by Harry L. Purdy, pp. 57-67; The problems of the short lines, by Clarence A. Miller, pp. 68-71; Railways and highways: Finance, taxation, and subsidy, by C. S. Duncan, pp. 72-78; Highway taxation: Present status and probable future trends, by Roy F. Britton, pp. 79-87; Public ownership and operation of railroads in the United States, by Joseph B. Eastman, pp. 106-119; The case for private ownership and operation of railroads in the United States, by J. J. Pelley, pp. 120-125; Government ownership of railroads as affecting shippers, pp. 126-132; The proposals of the Wheeler railroad ownership and operation bill, by G. Lloyd Wilson, pp. 133-141; Government acquisition and operation of railroads in the United States, by Burton K. Wheeler, pp. 142-145; A critique of the Wheeler-Eastman government ownership plan, by Henry A. Palmer, pp. 146-150; The question of railway unification, by E. W. Beatty, pp. 164-168.

9. American geographical society. New England's prospect: 1933. Amer. Geogr. Soc. Spec. Pub. 16, 502pp. New York, 1933. 500 Am35S

Partial contents: The railroads of New England, by William J. Cunningham, pp. 344-361; The highways of New England, by Arthur W. Dean, pp. 362-371.

10. American institute of cooperation. American cooperation, 1936; a collection of papers and discussions comprising the twelfth summer session... at the University of Illinois, June 15-19, 1936. 750pp. Washington, D. C., American institute of cooperation, 1936. 280.29 Am3A 1936

Partial contents: Operation and financing of motor trucks by cooperatives, by A. F. Potter, pp. 273-276; Transportation problems in relation to livestock, by L. J. Quasey, pp. 277-287; Transportation problems relating to grain, by Clyde M. Reed, pp. 389-399; Long-time effects of trucking on farmers' elevators, by M. R. Miller, pp. 400-404; Adjustments in terminal operations [grain], by H. E. Witham, pp. 405-408; Transportation problems in relation to fruits and vegetables, by M. P. Rasmussen, pp. 455-466; Motor truck transportation [fruits and vegetables], by Charles W. Hauck, pp. 467-472; Motor truck transportation in relation to Michigan cooperatives [fruits and vegetables], by G. N. Motts, pp. 473-481; The future of transportation in the United States, by J. B. Eastman, pp. 609-619; Future of agricultural freight rates in the United States, by Donald Conn, pp. 620-622; The growing importance of inland waterways, by J. O. McClintock, pp. 627-630.

11. American railway association, Car service division. [Shippers' advisory boards] Proceedings...

Complete files of these proceedings may be found in the Library of the Bureau of Railway Economics, Washington, D. C.

The Library of the U. S. Department of Agriculture has the proceedings as follows:

Allegheny regional advisory board. Proceedings...1st., Dec. 17, 1926. 289.9 [AmAl]

Atlantic States shippers' advisory board. Proceedings...7th., July 8-9, 1925; 9th., Jan. 14, 1926-10th., Apr. 8, 1926; 21st., Oct. 3, 1929-46th., Apr. 7, 1938. New York. 289.9 [AmA]

Great Lakes regional advisory board. Proceedings...10th., regular, December 1924; 12th. regular & 2d. annual, June 1925 to date. Cleveland. 289.9 [AmG]

Mid-West regional advisory board. Proceedings...6th., July 15, 1925 to 27th., Apr. 7, 1932. Chicago. 289.9 [AmM]

New England Shippers' advisory board. Proceedings...1st., October 1930 to date. Boston. 289.9 [AmNe]

Northwest regional advisory board. Proceedings...8th., July 1924, 12th., July 1925 to 52d., Jan. 27, 1938. Minneapolis. 289.9 [AmN]

Ohio Valley shippers' advisory board. Proceedings. 2d. annual & 8th regular, Nov. 10, 1925 to 30th regular, Sept. 15, 1931. Cincinnati. 289.9 [AmO]

Pacific Coast regional advisory board. Proceedings of regular meeting...4th.-7th., May 22, Aug. 21, Dec. 11, 1925, Mar. 19, 1926. San Francisco. 289.9 [AmP]

Pacific Northwest advisory board. Proceedings...Proceedings of the regular meeting...1st., 1925 to 23d., Dec. 9, 1932. Seattle. 289.9 [AmPa]

Southeast shippers' regional advisory board. Proceedings 2d., July 1923; 10th., June 1925 to 13th., Mar. 12, 1926. Atlanta. 289.9 [AmS]

Southwest shippers' advisory board. Proceedings 7th., Apr. 21, 1925 to date. Dallas, Tex. 289.9 [AmSo]

Trans-Missouri-Kansas regional advisory board. [Proceedings] 10th. formal & 2d. annual, June 11-12, 1925 to date. St. Louis. 289.9 [AmT]

These boards are designed to form a common meeting ground between shippers, local railroads and the carriers as a whole...to promote a better understanding of transportation problems; to adjust informally car service difficulties; to promote car and operating efficiency; to aid in the promotion of economic and transportation welfare through the study of production, marketing and distribution in their relation to transportation requirements; and to give the shipping public a direct voice in the activities of the Car Service Division on matters of mutual concern.

The proceedings contain much material of interest to this bibliography.

12. American short line railroad association. The imperative need for a national transportation institute. Mr. Bird M. Robinson's presentation. Hon. Sydney Anderson's address. Resolutions. 30pp. Washington, D. C., 1922. 289 Am34

13. American society of civil engineers. Transactions. New York. 290.9 Am3
The Library of the U. S. Department of Agriculture has v. 14, 1885 to v. 103, 1938.
A Supplemental Transactions no. issued as part 2 of some nos. of the Proceedings, is identical in text to the regular volume of Transactions and is classified in the number of the latter (290.9 Am3). In the regular Transactions vol. the Title, Proceedings and its vol. numbering are omitted.
Partial contents:
v. 83, 1919-1920: American highways; an informal discussion, by W. G. B. Thompson, H. Eltinge Breed, Eugene W. Stern, Calvin Tomkins, H. F. Dunham, and William E. Woolley, pp. 550-573; The national railroad question of today, by Francis Lee Stuart. Discussion by T. Kennard Thomson, A. J. County, George W. Kittredge, Calvin Tomkins, Augustus Smith, John H. Bernhard, G. J. Ray, Herbert C. Keith, Clement C. Williams, C. A. Morse, S. Whinery, and Francis Lee Stuart, pp. 927-979.

13a. v. 85, 1922: National port problems; a symposium...With discussion by William H. Adams, Arthur M. Shaw, T. F. Keller, Harwood Frost, L. F. Bellinger, John H. McCallum, Frank W. Hodgdon, M. G. Barnes, Nelson P. Lewis, and T. Howard Barnes - National phases of port problems, by Frederick W. Cowie, pp. 138-144; Terminals, by Lansing H. Beach, pp. 145-156...Function of port terminals as clearing agencies, by J. Rowland Bibbins, pp. 168-171...Relationship of rail and water carriers, by William J. Wilgus, pp. 195-198...
Water transportation; a symposium...with discussion by Gardner S. Williams, J. E. Willoughby, John C. Trautwine, Jr., Augustus Smith, C. C. Vermeule, and B. F. Groat - Water transportation, by R. H. M. Robinson, pp. 977-980; The American merchant marine, by Winthrop L. Marvin, pp. 981-984; The merchant marine problem, by Emory R. Johnson, pp. 985-991; Water transportation in its relation to the railways, by Samuel O. Dunn, pp. 992-997.
Railroad transportation; a symposium, with discussion by George W. Simmons - Railroad transportation, by Howard Elliott, pp. 1006-1019...Railroad transportation and owners of railroad securities, by F. A. Molitor, pp. 1025-1033.
Highway transportation; a symposium, with discussion by T. Hugh Boorman, Samuel Whinery, John C. Trautwine, Jr., Eugene W. Stern, Henry Goldmark, H. W. Brown, M. S. Ketchum, W. K. Hatt, and Edward W. Bush - Highway transportation, by Thomas H. McDonald, pp. 1035-1038...Financing and bonding highways, by John N. Cole, pp. 1047-1051...Financing and bonding highway work, by Edward C. Lunt, pp. 1058-1060; The motor vehicle in highway financing, by Harry Meixell, pp. 1061-1065; Financing and surety bonding, by Frederick Stuart Greene, pp. 1066-1067; Highway financing and bonding, by

Herbert S. Sisson, pp. 1068-1070; The motor truck as an asset to railroad operation, by R. S. Parsons, pp. 1071-1075; Motor vehicle control in Maryland, by G. Wythe Munford, pp. 1076-1081.

13b. v. 86, 1923: Progress in highway research, by W. K. Hatt, pp. 390-392 (Paper presented at annual convention, Portsmouth, N. H., June 21, 1922.)

13c. v. 87, 1924: Railroad transportation and railroad terminals; a symposium, with discussion by Clement C. Williams, B. F. Jakobsen, J. G. Roney, and William T. Lyle. - Some phases of present-day railroad transportation, by John W. Kendrick, pp. 682-688; Transportation as related to national development, by J. G. Sullivan, pp. 689-692; Railroads - the arteries of commerce, by J. Rowland Bibbins, pp. 693-707...Consolidation of railroads, by Charles A. Morse, pp. 716-723; Consolidation of railroads, by John S. Worley, pp. 724-730;... The railroad freight terminal problem in St. Louis, Missouri, pp. 740-794...Modern rail and water terminals, with particular reference to the situation at Chicago, Illinois, pp. 828-860; The modern freight terminal of the Pennsylvania railroad system in Chicago, Illinois, by William L. R. Haines, pp. 861-882.

Highway research in Illinois, by Clifford Older, with discussion by H. F. Clemmer, pp. 1180-1224.

13d. v. 88, 1925: Waterway and railway equivalents, by William M. Black, with discussion by C. E. Grunsky, C. H. Markham, Edward Burr, William G. Atwood, J. R. Slattery, C. I. Grimm, H. F. Dunham, William H. Burr, and William M. Black, pp. 538-577; Development of highway traffic in California, by L. I. Hewes, with discussion by Arthur E. Loder, Watt L. Moreland, and T. E. Stanton, Jr., pp. 1104-1130; The influence of the automobile on regional transportation planning, by George A. Damon, with discussion by Stephen Child and William T. Lyle, pp. 1131-1141.

13e. v. 89, 1926: Elements governing the development of highway traffic, by A. N. Johnson, with discussion by Arthur W. Dean and Van Alen Harris, pp. 259-269.

The St. Lawrence waterway to the sea, by Francis C. Shenehon, with discussion by H. de B. Parsons, H. C. Sadler, F. P. Williams, Thomas H. Hogg, L. C. Sabin, Gardner S. Williams, E. P. Goodrich, David B. Rushmore, Maurice W. Williams, L. H. Hart, A. Lindblad, Walter M. Smith, W. M. Black, G. B. Pillsbury, L. F. Harza, Elliott J. Dent, Kenneth L. De Blois, C. S. Riché, E. G. Walker, and Francis C. Shenehon, pp. 444-578.

Relation of the Ohio River and its tributaries to transportation in the United States; a symposium: The relation of the Ohio River and its tributaries to transportation in the United States, by C. W. Kutz, pp. 1106-1122...Comparison of rail and river transportation costs in relation to the Ohio River and its tributaries, by Frank H. Alfred, pp. 1127-1137; River-rail terminal, by Julian A. Pollak, pp. 1138-1140; Discussion, by R. N. Begien, L. D. Cornish, Charles S. Churchill, Charles Wuest, Jr., C. E. Grunsky, Charles A. Wilson, Hunter McDonald, Harry Taylor, W. M. Black, M. G. Barnes, C. I. Grimm, Frank H. Alfred, and C. W. Kutz, pp. 1141-1180.

13f. v. 91, December 1927: The New York State barge canal and its operation, by Roy C. Finch, with discussion by Frederic H. Fay, Maurice W. Williams, T. Kennard Thomson, Harry Taylor, E. P. Goodrich, F. Lavis, J. K. Finch, E. E. King, Frank L. Bolton, and Roy C. Finch, pp. 854-883; The Panama Canal, by John F. Stevens, pp. 946-967.

13g. v. 92, 1928: The relation of highway transportation to the railway, by Ralph Budd, with discussion by John V. Hanna, E. A. Hadley, F. G. Jonah, W. W. Crosby, William T. Lyle, M. H. Gerry, Jr., and Ralph Budd, pp. 394-433; The Lake Washington ship canal, Washington, by W. J. Barden and A. W. Sargent, with discussion by Ernest B. Hussey, Charles Evan Fowler, Joseph M. Clapp, L. C. Sabin, W. J. Barden, and A. W. Sargent, pp. 1001-1040; The history and development of road building in the United States, by Thomas H. MacDonald, pp. 1181-1206.

13h. v. 93, 1929: The Delaware River from Philadelphia to the sea, by F. C. Boggs, with discussion by Charles M. Spofford, Henry J. Sherman, Earl I. Brown, Harry Taylor, F. C. Warner, William Gerig, and F. C. Boggs, pp. 218-245; The Virginian railway electrification, by George Gibbs, with discussion by W. B. Potter, Marcel Japiot, L. K. Sillcox, I. Ofverholm, Ralph Budd, Guido Semenza, F. H. Shepard, E. R. Hill, Norman Litchfield, Sidney Withington, George J. Roy, John P. Hogan, R. D. N. Simham, and George Gibbs, pp. 571-627.

13i. v. 94, 1930: The Isthmian canal situation, by Hans Kramer, with discussion, by William B. Landreth, Eduardo Icaza, and Hans Kramer, pp. 406-424; The practical utility of highway transport surveys, by G. F. Schlesinger, with discussion by R. H. Simpson, W. A. Van Duzer, N. W. Dougherty, W. W. Crosby, Charles Randolph Thomas, Jr., and G. F. Schlesinger, pp. 474-521.

13j. v. 95, 1931: The Chesapeake and Delaware canal, by Earl I. Brown, with discussion by F. T. Chambers, pp. 716-765; Relation between rail and waterway transportation; a symposium, with discussion by Lewis C. Sorrell, R. B. Kittredge, Henry A. Palmer, J. Parker Snow, Baxter L. Brown, Theodore Brent, Samuel O. Dunn, Henry W. Hobbs, C. W. Kutz, T. Q. Ashburn, L. D. Cornish and E. A. Hadley - Waterway transportation from the viewpoint of operation, by T. Q. Ashburn, pp. 862-876; Railways versus waterways: an economic comparison, by L. D. Cornish, pp. 877-897; Relation between rail and waterway transportation, by E. A. Hadley, pp. 898-904; Discussion, pp. 905-950.

Highways as elements of transportation, by Fred Lavis, with discussion by W. W. Crosby, Walter Loring Webb, Jay Downer, S. Johannesson, D. P. Krynine, Harold M. Lewis, Donald M. Baker, Edwin F. Wendt, H. W. Hudson, and Fred Lavis, pp. 1020-1059.

13k. v. 98, 1933: Financing street and highway improvements, by R. W. Crum, with discussion by A. P. Greensfelder, C. R. Thomas, J. C. Carpenter, Samuel Eckels, Horace H. Sears, and R. W. Crum, pp. 74-100; Western highway practice, with special reference to California, by C. S. Pope, with discussion by J. S. Bright, R. D. Rader, H. S. Kerr, E. Q. Sullivan, T. A. Corry, Charles T. Leeds, G. S. Paxson, and C. S. Pope, pp. 473-513.

13l. v. 99, 1934: Estimating the economic value of proposed highway expenditures, by Thomas R. Agg, with discussion by W. W. Crosby, Roger L. Morrison, Samuel B. Folk, W. S. Downs, George E. Martin, J. T. L. McNew, H. E. Phelps, C. C. Wiley and Thomas R. Agg, pp. 1124-1154.

13m. v. 101, 1936: Proposed improvement of the Cape Cod canal, by E. C. Harwood, with discussion by C. S. Jarvis, George R. Rich, and E. C. Harwood, pp. 1440-1482.

13n. v. 103, 1938: Water transportation versus rail transportation; a symposium, with discussion by George Hartley, W. D. Faucette, and J. E. Willoughby, C. D. Bordelon, J. E. Goodrich, H. R. Faison, Rufus W. Putnam and S. L. Wonson, pp. 1279-1333 - The value of water transportation, by Rufus W. Putnam, pp. 1280-1295; The high cost of inland water transportation, by S. L. Wonson, pp. 1296-1308; Discussion, pp. 1309-1333; Economics of the Ohio River improvement, by C. L. Hall, with discussion by Eugene L. Grant, Fred Lavis, O. Slack Barrett, Edmund L. Daley, and Forrest E. Byrns, J. E. Willoughby and W. D. Faucette, W. E. R. Covell, and C. L. Hall, pp. 1527-1578.

14. Atterbury, W. W. The transportation problem. Coordination of transportation facilities essential - waterways an extravagance - Railroad credits and purchasing power necessary to business advancement - The four system plan. Transportation 10(2): 5-8. February 1932. Libr. Cong. HE1.T85

Address before the Birmingham, Ala., Traffic and Transportation Club.

15. Baker, George P. Two years of books on transportation. Harvard Business Rev. 16(4): 499-512. Summer 1938. 280.8 H262

"In the two years under review there have been brought forth the usual number of historical works upon subjects spotted about within the broad field of transportation. The non-historical works have dealt heavily with the problems of the relation of the transport industries to the government, and special attention is paid to the question of government ownership, since the present plight of the roads has made this question of far more than academic interest. The field is well supplied at the moment as regards general texts on the economics of transportation with the stress on railroad economics. In the more specialized branches water transportation is still well covered, the highway field is much less so, and air transportation is badly in need of a good comprehensive text."

16. Beard, Charles A., and Beard, William. The American leviathan; the republic in the machine age. 824pp. New York, The Macmillan co., 1930. 277 B38

Ch. XII, Transportation, includes a general discussion of the various forms of transportation as they have grown up in the United States - water, railway, and highway.

17. Bernhard, John H. Potential national and international transportation economies. World Ports 12(8): 43-59. June 1924. Libr. Cong. HE553.A55.

Includes discussion.

Paper presented at the 12th annual convention, American Association of Port Authorities, New Orleans, December 10-12, 1923.

Mr. Bernhard advocates the creation of an all-powerful department or commission in charge of all transportation. He outlines its functions.

18. Bibbins, J. Rowland. Transport - distribution. Some trends and opportunities for research and development. Natl. Marketing Rev. 1(3): 232-239. Winter 1936. 280.38 N213

Mr. Bibbins calls attention to the problem of intrastate movement of commodities, which is one of the causes of the high costs of distribution which prevail today. The problem is discussed from the standpoint of its relation to merchandise distribution, land values, railroad transportation and motor transport. The need for further research in this field is pointed out.

19. Blanchard, Wilson Oscar. Geographic aspects of transportation. 92pp. New York, H. Holt and co., 1930. 289 B59

Bibliography, pp. 91-92.

Maps showing international trade routes for various agricultural products are included.

20. Brady, Heman Geer. A transportation glossary for students; terms and phrases in common usage in air, highway, railroad and ocean transportation and in port traffic. 105pp. New York, Simmons-Boardman publishing co., [1929] Libr. Cong. HE141.B7

21. Bronson, H. A. The transportation problem for North Dakota. N. Dak. Univ. Quart. Jour. 16: 83-105. January 1926. Libr. Cong. AS36.N6

Not seen.

22. Brookings institution. Investigation of executive agencies of the Government. Report to the Select committee to investigate the executive agencies of the Government. 75th. cong., 1st sess. pursuant to Senate resolution no. 217 (74th. Congress) A resolution creating a select committee to investigate executive agencies of the Government with a view to coordination. No. 12. Report on the Government activities in the field of transportation. 155pp. Washington, U. S. Govt. print. off., 1937. 280.12 B79

Partial contents: Part I. Description: A. Highway transportation (1. Promotion; 2. Regulation); B. Rail transportation (1. Promotion; 2. Direct operation; 3. Regulation); C. Air transportation (1. Promotion; 2. Regulation; 3. Research and general investigation); D. Water transportation (1. Federal activities applicable to all forms (a. Promotion; b. Regulation); 2. Domestic shipping aid and controls (a. Promotion; b. Regulation); 3. Federal interest in foreign shipping); E. Summary.

Part II. Analysis and recommendations: A. Characteristics of modern transportation; B. Relation of promotional activity to competitive character of transportation system; C. Contrast between promotional and regulatory policy; D. Remedial proposals; E. Summary.

23. Butterbaugh, Wayne E. [Series on selecting transportation services] Distribution Econ. 1(3): 34-35, 52, 57; (4): 34-35, 45, 47, 64; (5): 32-34; (6): 36-37, 50, 52; (7): 34-37; (8): 28-31. December 1928, January-May 1939. Libr. Cong. HF5761.A1M3

Contents: [1] Cost factor in selecting transportation service; [2] Speed factor; [3] Bulk and weight factors...[4] Nature of goods factor...[5] Facility factor...[6] Availability factor...

24. California. State planning board. Extracts from a report to the National resources board on the work of the California State planning board, January-December 1934. 47pp. [Sacramento, 1935] 280.7 C12E

"The following material relates in general and particularly to problems of transportation and state-wide highway development."

Maps are included.

25. Chamber of commerce of the United States of America. National transportation policies. 16pp. Washington, D. C., 1933. Pam. Collect. 289 C

These are the transportation policies advocated by the membership of the chamber. They cover all phases of the problem.

26. Chamber of commerce of the United States of America, Special committees I-V and Joint subcommittee. Reports. Washington, D. C., 1923. 289 N21R

These reports were issued for consideration in advance of a national transportation conference. The reports are:

Governmental relations to railroad transportation. Report of Special committee I. 41pp.; Railroad consolidation. Report of Special committee II. 31pp.; Readjustment of relative freight rate schedules. Report of Special committee III. 47pp.; Relation of highways and motor transport to other transportation agencies. Report of Special committee IV. 44pp.; Development of waterways and coordination of rail and waterway service. Report of Special committee V. 25pp.; Taxation of transportation agencies. Report of Joint subcommittee. 8pp.

27. Clark, J. Maurice. Studies in the economics of overhead costs. 502pp. Chicago, Ill., University of Chicago press, 1923. 280 C542S

Partial contents: Ch. XIII. Railroads and costs: a statistical study; XIV. Overhead costs and railroad rate problems; XV. The transportation system as a whole.

28. Clause, W. L., and others. New trends in transportation. 25pp. [Washington, D. C.], Chamber of commerce of the United States, 1927. Ry. Econ. HE139.C35

Contents: Inland waterways, by W. L. Clause, pp. 9-13; Motor transportation, by A. J. Brosseau, pp. 14-15; Railroad transportation, by George D. Ogden, pp. 17-18; What's ahead for transportation and communication, by William J. Dean, pp. 22-25.

29. Conference on unemployment, Committee on recent economic changes. Recent economic changes in the United States. Report...including the reports of a special staff of the National bureau of economic research, inc. Ed. 1, v. 1, 424pp. New York, London, McGraw-Hill Book co., inc., 1929. 280 C766 v. 1

Herbert Hoover, Chairman.

Ch. IV, Transportation. Part I. Railways, by William J. Cunningham, includes I. Capital expenditures; II. Changes in financial organization; III. Changes in volume of traffic; IV. Effect of motor vehicle competition; V. Changes in freight and passenger rates; VI. Changes in relations between railway management and employees; VII. Changes in indexes of operating efficiency; VIII. Changes in railway net income; IX. Consolidation and unification; X. Changes in quality of railway service; XI. Summary.

In concluding the summary, the author says: "From the public point of view, the outstanding railway development since the war has been the marked improvement in transportation service. The adequacy, speed, and dependability in freight movement have never been better. The improvement is seen in freedom from car shortages, embargoes, and other restrictions, and in close adherence to scheduled transit times. The number of scheduled fast freight trains has been increased and the speed bettered so as to give earlier deliveries at destination. Incidental services have been extended, and throughout the whole service there is greater effort to apply modern merchandising principles in the development and sale of transportation..."

Part 2. - Shipping, by E. S. Gregg, discusses total available tonnage, shipbuilding, American merchant marine, intercoastal trade, inland waterways, and summary.

In the Summary, the author says: "The effect of the Panama Canal on American shipping has been profound. The best of our privately owned merchant fleet is in the protected trade between the Atlantic and Pacific coasts. The canal has also influenced our channels of domestic trade and the localization of industry in this country.

"The shifts in traffic due to the opening of the Panama Canal have caused business men in the Middle West to back the development of the Mississippi river system including a Great Lakes connection, and the Great Lakes to the Atlantic waterway."

30. Connecticut society of civil engineers. Papers and transactions and proceedings. New Haven. 290.9 C762

The Library of the U. S. Department of Agriculture has 1919, 1928-1938.

Partial contents:

48th., 1932: Recommendations of special committee of the Connecticut Society of Civil Engineers with respect to the consolidation of New England railroads, by Howard E. Boardman, pp. 60-77; Railroad traffic and electrification, by Sidney Withington, pp. 87-98.

50th., 1934: Development of transportation in Southern New England, by Kent T. Healy, pp. 95-120.

53d., 1937: The regulation of transportation in Connecticut, by Joseph P. Wadhams, pp. 33-56.

54th., 1938: Connecticut's canals, by Charles Rufus Harte, pp. 118-179.

31. Corliss, Carlton J. Trails to rails: a story of transportation progress in Illinois. 48pp. Chicago, Illinois central system, 1934. Ry. Econ. Libr. HE2791.I4C8

32. Daggett, Stuart. Our changing transportation system. Amer. Econ. Rev. Sup. 22(1): 256-266. March 1932. 280.8 Am32

Discussion, by Marvin L. Fair, pp. 267-271; by Howard C. Kidd, pp. 271-272; by Shorey Peterson, pp. 272-274; by D. Philip Locklin, pp. 274-276.

The question of subsidies is discussed in this article as well as the forms of transportation newer than the railway. It is felt that subsidies favor these newer forms rather than the railway.

33. Daggett, Stuart. Principles of inland transportation. Rev. ed., 898pp. New York and London, Harper & bros., publishers, 1934. 289 D13

First edition issued in 1928.

References at end of chapters.

"Introduction - This book has four purposes: the first is to present to the reader a picture of the transportation system of the United States; the second is to consider the character and direction of traffic which makes use of this transportation system; the third is to discuss a selected list of problems which concern, for the most part, the relations between transportation companies and shippers or between such companies and the general public; and the fourth is to trace the progress of legislation in England, France, Germany, and the United States, with special reference to railroads, but mentioning also statutes which control inland waterway, motor vehicle, and aircraft transportation."

Chapters dealing with rates include: XVI. Competition of routes and local discrimination - Southern basing point and transcontinental rate systems; XVII. The long- and short-haul clause and its interpretation; XVIII. Group rates - Trunk line rates - Mileage scales; XXI. The problem of price-fixing - Equality of charges; XXII. The problem of price-fixing - The aggregate return to railroad carriers - Fifth and fourteenth amendments; XXIII. Rates of return - Public utility valuation; XXIV. Rates on particular hauls.

Chapters dealing with regulation are: XXIX. Early State legislation - Granger laws; XXX. The Act to regulate commerce and its later amendment; XXXII. Federal railroad operation in the United States, 1918-20; XXXIII. Regulation of inland waterways; XXXIV. Statutory control of motor vehicle common carriers in the United States; XXXV. Conflicts of State and national authority; XXXIX. The Transportation act of 1920; XL. Later amendments to the transportation law.

Three chapters deal with commodity movements - XIII with grain; XIV with live stock and fruit; and XV with lumber, cotton, and sugar.

34. Duncan, Carson Samuel. Marketing: its problems and methods. 500pp. New York, London, D. Appleton and co., 1920. 280.3 D91

Readings at end of chapters.

This is a textbook, "written to meet the need in schools and colleges for a text covering the general methods and problems of marketing raw materials, farm products and manufactured goods..."

Ch. VI of Part I, Raw Materials and Foodstuffs, deals with Transportation. It discusses transportation as a commercial problem; transportation to local, primary and terminal markets; rate districts (New England, Trunk line and Central traffic, Trans-Mississippi and Trans-Missouri, Southeast, Texas, and Pacific Coast and Transcontinental); classification rates; commodity rates; terminal charges; special cars; car supply and routing; demurrage; trolley lines; and motor-truck lines.

35. Duncan, Carson Samuel. A national transportation policy. 315pp. New York, London, D. Appleton-Century co., 1936. 289 D91N

The author of this book has been in the employ of railroads for the past thirteen years. He says:

"...During this extended period it has been my duty to study questions arising in connection with that part of the transportation industry. In recent years I have given much attention to those problems which derive their source from the competitive relationships between different agencies of transportation. On the basis of this thought, study, and experience the following pages are founded..."

Discussion is included of the need for a national policy; a unified and a consistent policy; adjustment of facilities; competition and coördination; cost and subsidy; finance and taxation; rates and service; surplus facilities; government ownership; etc.

Appendices include: I. Excerpts from important sources on the general transportation problem; II. Railroad statistics; III. Highway statistics; IV. Coördination of road and rail transport.

Rail, highway, water, pipe-line, and air transportation are all discussed.

36. Duncan, Carson Samuel. Rail and road transport at home and abroad. Address...before the Atlantic States shippers advisory board, Rochester, N. Y., Sept. 29, 1932. 29pp. [n.p.] 1932. 289 D91

37. Dunn, Samuel O. Transportation economics and current problems. Railways and other carriers - "Fair return" theory likely to increase rather than reduce cost of service to public. Railway Age 82(17): 979-982. Mar. 26, 1927. 288.8 R136

Address before the Affiliated Technical Societies, Boston, Mass., Feb. 17, 1927.

Discussion is included of the effect of diversion of traffic; waterways to "relieve" railways; unproductive improvements and costs; capital and operating economies; regulation and transportation costs; and economic consequences of "fair return" theory.

38. Edgar, E. Mackay. The American transportation crisis. Sperling's Jour. 6(36): 36-45. Libr. Cong. HC10.S7
The causes of the American breakdown are discussed, and some of the results listed.

39. Eutsler, Roland B. Transportation developments and economic and industrial changes. Amer. Acad. Polit. and Social Sci. Ann. v. 153, pp. 202-209. Philadelphia, January 1931. 280.9 Am34
Transportation developments and factors affecting them in the Southern States are discussed. The Southern rate structure, its revision, and market competition affecting rates are included in the discussion.

40. Filene, Edward A. Railroads, a super-highway and the unemployed. Survey Graphic 22(2): 83-85. February 1933. 280.8 C37G
"More transportation not less is what we need: better railroads with modernized equipment; a fourfold super-auto-highway, with one-way traffic and the cops urging you to drive faster - to build these, Mr. Filene holds, will give us transportation that we need and will prove a sure step up out of the slough of depression."

41. Florida. State planning board. [Progress report, April 1, 1935] various paging, processed. Tallahassee, 1935. 280.7 F66
Includes Report of Transportation committee. Highways, by C. H. Overman. 6pp.; Report of Transportation committee on Highways, rail, air, and water, by C. H. Overman. 3pp.; Report of Transportation committee in collaboration with the State road department. Statewide road survey, by W. P. Jernigan. 4, 5pp.; Report of Transportation committee. Waterways, by E. W. Cunningham. 6, 5pp.; Report of Transportation committee on railways, by M. L. Montgomery. 3pp.

42. Friday, David. The research program of the National Transportation Institute. Acad. Polit. Sci. Proc. 10(4): 743-750. New York, January 1924. Libr. Cong. HC106.3.A55
Read at the Fourth Session by Hon. Sydney Anderson, Member of Congress from Minnesota and Vice-chairman of the Research Council of the National Transportation Institute.

43. Frost, Harwood. The cost of waste. Traffic World 25(16): 709-711. Apr. 17, 1920. 288.8 T672
Discusses waste in railroad and marine terminals.

44. Hall, James K. Transportation and public utility research with reference to the Pacific Coast. Pacific Coast Econ. Assoc. Papers and Proc. (1937)16: 57-61. Ann Arbor, Mich., 1938. 280.9 P11

45. Henry, R. A. C. The importance of port and railway development as transportation facilities. World Ports 18(3): 144-152. January 1930. Libr. Cong. HE553.A55
Presented before the 18th. annual convention of the American Association of Port Authorities, Sept. 23-25, 1929, Quebec, Canada.
The importance of such development to both Canada and the United States is stressed.

46. Horn, Paul V. International trade; principles and practices. 723pp. New York, Prentice-Hall, inc., 1935. 286 H78
Chapters of interest to this bibliography are XIV, Transportation and its relation to commerce; XV, Transportation and its relation to commerce, with special reference to the United States; and Chapters XXX-XXXI, The technique of an export shipment.

47. Huebner, Grover G. The fundamentals of traffic; a series of fifty-two lectures on traffic and traffic management. 276pp. Chicago, The traffic service corporation, 1925. Ry. Econ. Libr. HE1756.H87
Partial contents: Ch. I-II. Volume and characteristics of railroad traffic; V. Freight traffic associations; VI-VII. Principles of rate-making; VIII. Principles of classification; IX-X. The consolidated freight classification; XI. Publication of tariffs; XII. Local tariffs; XIII. Joint tariffs; XIV. Agency tariffs; XVII-XVIII. Rates in Eastern territory; XIX. Eastern port differentials; XX-XXI. Rates in Southern territory; XXII-XXIII. Rates in Western territory; XXIV. Rates in Southwestern territory; XXV. Transcontinental rates; XXVI. The Panama Canal and railroad rates; XXVII. Principles governing export and import rate structures; XXVIII. Import freight rate structures; XXIX. Export freight rate structures; XXXIII-XXXIV. Special services and privileges; XXXVII. Time and preference freight services; XXXVIII-XXXIX. Freight claims; XL-XLI. Freight routing; XLII-XLIII. Methods of developing freight traffic; XLIV. Highway transportation; XLVI-XLVII. The Transportation Act of 1920; XLVIII. Procedure before the Interstate Commerce Commission; XLIX. The relative jurisdiction of Federal and State governments.

48. Hungerford, Edward. Transportation and communication. In Beard, C. A., ed. Century of Progress, pp. 86-121. New York and London, 1933. 277.12 B38
This is an historical chapter.

49. Iowa. State planning board. Transportation committee. Report of progress. September 1934. 54pp. [n.p., 1934] 280.7 Io9T

50. Iowa. State planning board. Transportation committee. Reports, August 1934 and March 1935. 54, 42pp., processed. [n.p., 1935] 280.7 Io96
Contains Preliminary and Progress reports.

51. Jackman, W. T. Economic principles of transportation. 891pp. Toronto, The University of Toronto press, 1935. 289.2 J12E

This book is based upon a volume issued by the author in 1926, entitled "Economics of Transportation." It is, however, largely rewritten.

While written largely from the viewpoint of Canada, the influence of conditions in the United States upon transportation in Canada is discussed and the chief freight rate structures of the United States and Canada are described in Chapter XII.

52. Johnson, Emory R., Huebner, Grover G., and Wilson, G. Lloyd. Principles of transportation. 815pp. New York, London, D. Appleton and company, 1928. 289 J63

References at end of chapters.

"The business of transportation, as distinct from the mechanism by which the service is performed, is discussed in this volume, such consideration being given to equipment and facilities as is necessary to an understanding of the rapid development that is taking place in the agencies of transport by rail, highway, ocean and air. Most of the former books on transportation economics that have been written for college and non-academic students have stressed public policy and government regulation more than business practice and principles. This volume emphasizes the services rendered by carriers in the different fields of transport. Government regulation is neither neglected nor unduly minimized, but has been given what is believed to be its proportionate share of the discussion as a whole.

"The most distinctive characteristic of the present volume is that it for the first time brings within one book an account of the services of all four kinds of carriers, those by railroads, highways, waterways and airways..." - Preface.

Contents: Part I. Railroad Services - Ch. II. The locomotive and power development; III. Freight car equipment: distribution, interchange and demurrage; IV. Freight train services and car lines; V. Special traffic services; VI. Freight terminal services; VII. Railroad passenger services; VIII. The railroad express service; IX. The railroad mail service.

Part II. Railroad Business Methods and Organization - Ch. X. Organization of freight transportation and traffic; XI. Freight station operations: billing and handling of freight; XII. Shipping rules and freight routing; XIII. Freight traffic development; XIV. Freight traffic and service associations; XV. Industrial traffic departments.

Part III. Railroad Rates - Ch. XVI. Theory and principles of rate-making; XVII. Classification and freight tariffs; XVIII. The New England rate structure; XIX. The rate structure in trunk line territory; XX. Central freight association rate structure; XXI. The rate structure in Southern territory; XXII. Rate adjustments in Western trunk line territory; XXIII. The Southwestern territory rate structure; XXIV. The rate structure in the Mountain-Pacific territory; XXV. Export and import freight rates.

Part IV. Government Regulation of Railroads - Ch. XXVI. The regulatory powers of the States and the federal government; XXVII. Government regulation of railroad rates and fares; XXVIII. Administrative and financial regulation of railroads; XXIX. Regulation of intercarrier relations, safety appliances and labor disputes; XXX. Government ownership of railroads.

Part V. Motor and Highway Transportation - Ch. XXXI. The development of motor transportation; XXXII. Independent motor freight carriers' services and rates; XXXIII. Independent motor passenger carriers' services and fares; XXXIV. Coördinated motor-rail freight terminal services; XXXV. Rail-motor line-haul coördination; XXXVI. Store-door freight service; XXXVII. Coördinated motor-rail passenger services; XXXVIII. The coördination of motor and electric railway transportation services; XXXIX. The coördination of steamship and motor freight transportation; XL. Regulation of motor transportation.

Part VI. Transportation by Water - Ch. XLI. The ocean carrier; XLII. The measurement of vessels and traffic; XLIII. Ocean routes; XLIV. Ocean terminals and terminal charges; XLV. Cooperation and competition in the ocean transportation service; XLVI. The business organization of steamship lines; XLVII. Ship brokerage and chartered steamship services; XLVIII. Ocean charter parties; XLIX. Ocean shipping papers and ship's documents; L. Ocean freight classifications and tariffs; LI. Ocean freight rates; LII. Ocean freight forwarding and freight brokerage; LIII. Ocean passenger and mail services and charges; LIV. Government regulation of ocean carriers; LV. Merchant marine policies of foreign countries; LVI. The American merchant marine and shipping policy; LVII. Coastwise and inland water transportation.

Appendix: Merchant Marine Act, 1928.

53. Joint conference of shippers' advisory boards. Statements of economic and transportation conditions: conclusions of the Joint conference of shippers' advisory boards...Chicago, Illinois, January 7-8, 1926. 106pp. [n.p.] 1926. 289.2 J662

54. Kinsman, Delos O. Our economic world; a study of the world's natural resources and industries. 584pp., illus. New York, T. Y. Crowell Co., 1937. 278 K62

Part III. Transportation Systems, consists of six chapters: XXVI. Highway transportation; XXVII. Railway and pipe-line transportation; XXVIII. Water transportation; XXIX. Air transportation; XXX. The continental trade routes; XXXI. Ocean and air routes.

Suggested readings at end of each chapter.

The author, in his preface, says: "It is the purpose of this volume to assist the reader in locating the world's supply of raw materials, in understanding the intricate processes of production, and in appreciating the organization of the economic system which today makes available our vast supply of goods. The historical approach has been emphasized to make clearer man's mastery of industrial difficulties..."

55. Locklin, David Philip. Economics of transportation. Rev. ed., 863pp. Chicago, Business publications, inc., 1938. 289 L81 Rev. ed.
Selected references at end of chapters.
Partial contents: Ch. I. Economic significance of improved transportation; II. Before railroads; III. The era of railroad building; IV. The railroad system of the United States; V. Freight rates and prices; VI. Freight rates and the location of industries and market centers; VII. The theory of railroad rates; VIII. Rate making in practice; IX. Beginning of railroad regulation; X. Federal legislation, 1887-1920; XI. The Transportation Act of 1920; XII. Railroad legislation since 1920; XIII. The agencies of control; XIV. Railroad competition and its control; XV. The rate level; XVIII. Fair rate of return; XIX. The weak-and-strong-road problem; XX. Reasonable rates on particular commodities; XXI. Reasonableness of rates between particular points; XXII. Personal discrimination; XXIII. Discrimination between places and commodities; XXIV. Long-and-short-haul discrimination; XXVI. Finance and financial regulation; XXVII. Railroad service and service regulation; XXVIII. Common-carrier liability; XXIX. Government ownership and operation of railroads; XXXI. Water transportation; XXXII. Regulation of water transportation; XXXIII. Highway transportation; XXXIV. Regulation of highway transportation; XXXVI. Transport coördination.

56. Locklin, David Philip. Transport coordination and rate policy. Harvard Business Rev. 15(4): 417-428. Summer 1937. 280.8 H262
Mr. Locklin discusses the meaning of coordination; rate policies for competing forms of transport; the cost of service; present policies; rate policy under a coordinated system; and cost as a basis for policy.
"In conclusion two matters pertinent to the problem under discussion should be mentioned. First, the division of traffic between competing forms of transport does not solve the problem created by a surplus of transportation facilities...
"The second point which we wish to make is that an economic division of traffic between different forms of transport cannot be attained if part of the costs of transportation of some transportation agencies are borne by the taxpayer..."

57. Miller, Sidney L. Inland transportation: Principles and policies; a revision and extension of "Railway transportation." 822pp. New York and London, McGraw-Hill book co., inc., 1933. 289 M61
References at end of chapters.
Contents: Part I. Introduction: Ch. I. Nature, scope, and significance of transportation; II. Early history of transportation; III. The early development of transportation in the United States.
Part II. Railway history of the United States: Ch. IV. Beginnings of the American railway net; V. Acceptance of the railway: expansion of net; VI. Acceptance of the railway: regulation and general policies VII. Genesis of the railway problem: Mileage extension and finance; VIII. Genesis of the railway problem: Competition and advance in

regulation; IX. Development of the railway problem: Mileage growth and credit; X. Development of the railway problem: The perfection of regulation; XI. Development of the railway problem: Federal operation; XII. The Transportation Act of 1920 - History and provisions; XIII. Recent railway history: Economic conditions and intercorporate relations; XIV. Recent railway history: Labor, service, recapture, and miscellaneous rate powers; XV. Recent railway history: Rates, rate of return, and evaluation of policy.

Part III. The railway service: Ch. XVI. The railway enterprise; XVII. Territorial groupings; XVIII. The railway net: Routes and terminals; XIX. Freight service; XX. Freight charges; XXI. Passenger service and charges; XXII. The minor services - mail and express; XXIII. Railway accounting and statistics.

Part IV. Some economic aspects of transport: Ch. XXIV. Competition; XXV. Combination; XXVI. Railway unification; XXVII. Capitalization and capital value; XXVIII. Security regulation; XXIX. An analysis of railway financial data; XXX. Theories of rate making; XXXI. Rate-making practice; XXXII. Comparative railway charges.

Part V. Modern transport: Ch. XXXIII. Motor transportation: Its development; XXXIV. Motor transportation: Some major problems; XXXV. Inland waterways: Revival and program; XXXVI. Inland waterways: Economic analysis; XXXVII. Air transportation; XXXVIII. Progressive transport; XXXIX. The transportation problem; XL. A national transportation policy.

58. Minnesota. State planning board, Committee on transportation. Report of the Committee on transportation (highways, railways, airways and waterways) of the Minnesota State planning board. 36pp., processed. [St. Paul?] 1934. 280.7 M6622

Includes maps and diagrams.

59. Mississippi. State planning commission. Transportation in Mississippi. Miss. State Planning Comn. Release 15, 83pp., processed. Jackson, October 1937. 280.7 M692R

Releases no. 6. Railways in Mississippi; no. 8. Highways in Mississippi; no. 12, Waterways in Mississippi; and no. 16. Aviation in Mississippi are included here.

Contents: Part I. Highways; II. Highway transport; III. Railways (Freight rates, p. 46-A-C); IV. Waterways; V. Aviation.

Maps are included.

60. Moulton, Harold G., and associates. The American transportation problem. Prepared for the National transportation committee. 915pp. Washington, D. C., The Brookings institution, 1933. 289 M86A

Select bibliography, pp. 896-910.

Associates with Dr. Moulton in the preparation of this book were Paul T. David, Charles L. Dearing, Ralph L. Dewey, Wilfred Eldred, Charles W. Eliot, 2d., Ralph J. Fogg, Charles O. Hardy, Lloyd C. Hoeltzel, Susumu Kobe, Adah L. Lee, Isador Lubin, Fred W. Powell, Porter R. Taylor, and Benjamin P. Whitaker.

Contents: Report of the National Transportation Committee, pp. xv-lxix; Part I. Introduction - Ch. I. Introduction; II. The trend of railway financial condition, 1890-1929; III. Railroads and the depression.

Part II. Factors Affecting Railway Net Income - Ch. IV. Volume of traffic; V. The decline of passenger business; VI. Operating efficiency; VII. Freight and passenger rates; VIII. Obsolescent lines; IX. Railroad wages and operating costs; X. Unproductive expenditures; XI. Taxation.

Part III. Financial Structure and Financial Policies - Ch. XII. Financial structure and ownership of the railways; XIII. Railroad capitalization; XIV. Financial policies; XV. Reorganization procedure: current practice; XVI. Reorganization procedure: proposals for change.

Part IV. Regulation of the Level of Rates - Ch. XVII. The valuation plan; XVIII. The recapture experiment; XIX. Analysis of valuation principles; XX. The utility of physical valuation.

Part V. Water Transportation - Ch. XXI. Waterway history and policy; XXII. Comparative cost of water and rail transportation; XXIII. Analysis of specific projects (New York State barge canal system; Ohio River; Missouri River improvement; Mississippi River; Intercoastal waterway; St. Lawrence project).

Part VI. Highway Transportation - Ch. XXIV. Nature of the highway transport problem; XXV. Highway development and financing; XXVI. Who pays for the highways?; XXVII. Motor vehicle taxation; XXVIII. Truck competition in agricultural products; XXIX. Possibilities of co-ordination of rail and motor transport.

Part VII. Other Transportation Agencies - Ch. XXX. Oil and gasoline pipe lines; XXXI. Air transport.

Part VIII. Stabilization of the Railroad Industry - Ch. XXXII. The readjustment of rates and costs; XXXIII. The problem of terminal unification; XXXIV. Transportation and city planning; XXXV. Methods of effecting terminal unification. XXXVI. Consolidation and efficiency

Part IX. Reorientation in Transportation Regulation - Ch. XXXVII. Development of the present system of regulation; XXXVIII. The need for a new transportation policy.

61. Moulton, Harold G. Fundamentals of a national transportation policy. Amer. Econ. Rev. Sup. 24(1): 33-46. March 1934. 280.8 Am32

Discussion, by J. M. Barriger, III, pp. 57-62; by Julius H. Parmelee, pp. 62-64.

The author develops his discussion under these headings: "(1) The principles underlying early American transportation development; (2) the causes of haphazard and unco-ordinated development between 1840 and 1933; (3) the policies that must now be adopted by the government to secure a unified transportation system; (4) the relation of transportation companies to the process of co-ordination; and (5) the principles which should be followed in regulating the level of transportation charges..."

In his discussion of the regulation of the level of transportation rates, mention is included of changing interests and shifting views; the impracticability of adjusting the rate level; and the need of a flexible rate theory.

62. National bureau of economic research, inc. Income in the United States; its amount and distribution: 1909-1919. By the staff of the National bureau of economic research, inc.; Willford I. King; Oswald W. Knauth; Frederick R. Macaulay. Edited by Wesley C. Mitchell. v. 2. New York, National bureau of economic research, 1922. 284 N21
Partial contents: Ch. 8, Summary of transportation; Ch. 9, Steam railway, switching and terminal companies; Ch. 11, Express companies; Ch. 16, Transportation by water.

63. National economic league. The outlook for transportation. Addresses by L. F. Loree...Walker D. Hines...Alfred H. Swayne. Natl. Econ. League Consensus, v. 18, no. 2, 32pp. June 1933. 280.8 C76
The outlook for transportation is discussed by the president of a railroad, the director-general of railroads and the vice-president of the General Motors Corporation, respectively.

64. National transportation committee. Report...February 13, 1933. 48pp. New York, 1933. 289.2 N214
The conclusions of the Committee are that the railroad system must be preserved; that changed conditions require new policies but that railroad regulation should not be abandoned. Parallel lines and systems are considered wasteful. Unprofitable railroad services should be replaced by cheaper alternative transport methods. Railroads should own and operate competing services, subject to regulation. Government assumption of all or part of the costs of inefficient competing transport as a defense against monopoly is no longer warranted and should be abandoned. Automotive transportation should be regulated.
The Committee recommends also that the policy of railroad property appraisal be reconsidered; that the railroads attempt to improve their condition without government aid; and that regulatory jurisdiction be extended to the whole national transportation system but applied only to the extent necessary for public protection.

65. National transportation institute. National transportation institute. [18]pp. Washington, D. C., 1922. 289.9 N212N
This is a condensed, skeleton plan for the proposed national Transportation Institute.

66. National transportation institute. Report of the president, 1922. 31pp. [Washington, D. C., 1922] 289.9 N212
The work of the institute, together with a brief review of the history of the railroads, are set forth.

67. Nelson, C. S., and Stufflebeam, George T. The traffic dictionary; a compendium of domestic and foreign trade and shipping terms, phrases and abbreviations. Ed. 3, thoroughly rev., 224pp. New York, Shipping service organization, 1935. 289 St9 Ed.3
Edition 2 was issued in 1923 and was compiled by George T. Stufflebeam.

68. Niklason, C. R. Commercial survey of the Pacific Southwest. U. S. Dept. Com. Bur. Foreign and Dom. Com. Dom. Com. Ser. 37, 647pp. Washington, D. C., 1930. 157.54 D71
Ch. IX. Transportation, includes discussion of the freight rate structure, rail traffic, influence of the Panama Canal, inland water transportation in California, motor-vehicle transportation, and water-borne foreign commerce.

69. Payne, Henry Mace. Natural resources and national problems. 63pp. Washington, D. C., American mining congress, 1928. 280 P29
Bibliography at end of each chapter.
In Chapter II, Transportation, the author discusses the influence of transportation on civilization; the part played by transportation systems in taxation and as consumers of raw material; long distance motor truck transportation; results under the Transportation Act; and the effect of expeditious transportation on raw material stocks.

70. Powell, Thomas Carr. Papers and addresses during 1923 and 1924 on general questions of transportation, by T. C. Powell, vice-president, Erie railroad. 146pp. New York, The Marchbanks press, 1925? 289 P87
Among these addresses are: Use of motor trucks as an adjunct to railroad service, pp. 62-63; Inland rail rates in relation to ocean transportation, pp. 78-100; The theory and practice of railroad freight rates and passenger fares, pp. 101-113; The relation between inland transportation and water transportation in the development of our foreign trade, pp. 114-136.

71. Rea, Samuel. American transportation. 21pp. [Philadelphia, Pa.] 1925. Pam. Collect. 289.2 R
Address...before the American Society of Mechanical Engineers at its national regional meeting held at Altoona, Pa., Oct. 6, 1925.
Mr. Rea discusses the general transportation situation and mentions motor vehicle and air transport competition. He states that he expects to see all commercial traffic on inland canals disappear.

72. Rea, Samuel. Practical steps which should be taken to improve our national transportation system. 29pp. [Philadelphia, Pa.] 1924. Pam. Collect. 289.2 R
Address before the Chamber of Commerce of the United States, Eastern Division, Philadelphia, Pa., Jan. 17, 1924.
These steps, which relate to railroads, are: "1. Readjustment of the rate structure to yield larger revenues; 2. Lowering of labor costs; 3. Reduction in taxes; 4. Greater efficiency in operation."

73. Reck, Franklin M. The romance of American transportation. 253pp. New York, T. Y. Crowell co., 1938. Ry. Econ. Libr. HE2751.R24
A more or less popular, illustrated account of the development of present day transportation facilities.

74. Regional plan of New York and its environs. Regional survey of New York and its environs: v. 4, Transit and transportation: and a study of port and industrial areas and their relation to transportation, by H. M. Lewis. 226pp. New York, 1928. 352.61 R26

75. Robinson, Bird M. National transportation institute. Jour. Farm Econ. 4(3): 150-151. July 1922. 280.8 J822
A discussion of the proposed National Transportation Institute, and of its objects.

76. Rose, Philip S. The crisis in transportation. Rapid changes have created a national traffic jam. Country Gent. 87(28): 1-2. Aug. 19, 1922. 80 C833
Discusses some of the problems caused by the rapid growth of motor transportation.

77. Slaughter, Jack. Income from transportation, 1929-1935. Natl. Indus. Conf. Bd. Conf. Bd. Bull. 10(10): 73-77. October 1936. 280.8 N214
"Realized income from transportation was $6.5 billion in 1929 and only $3.7 billion in 1933. Preliminary estimates indicate an increase to $4.2 billion in 1935. Approximately three-fourths of the realized income is in the form of salaries and wages. Dividends accounted for only 3% of the total in 1935. Income contributed by steam railroads dropped from 59% of the total in 1929 to 51% in 1935, while the proportion of the total represented by income from motor and express transportation increased from 20% to 27%.

78. Snell, Hampton K. The next ten years in American transportation. Pacific Coast Econ. Assoc. Papers and Proc. (1934)13: 17-22. Stanford University, Calif., 1935. 280.9 P11
Discussion, by Eliot Jones, pp. 23-24.
Mr. Snell briefly discusses the most important problems and trends in rail, air, highway, and inland waterway transportation.

79. Sumner, John D. The traffic record of transport agencies, 1928-1935. Jour. Land & Pub. Utility Econ. 12(4): 391-397. November 1936. 282.8 J82
"The purpose of this discussion is to present the traffic record of the past eight years and to call attention to the more important aggregate changes that have occurred therein. Emphasis will be placed upon the position of the more significant domestic waterways, while the paucity of reliable statistical information will necessitate only passing reference to the motor trucking industry. The following points will be treated: (1) share of the tonnage moved by each of the

several types of carriers; (2) annual changes in their respective volumes of traffic; (3) the record of the principal waterways; (4) the position of the Inland Waterways Corporation, or federal barge line."

80. Thorne, Clifford. Transportation problems for 1922. Amer. Coop. Jour. 17(1): 12-14. January 1922. 280.28 Am3
Four problems are listed: "A. To what extent and on what additional commodities should further reductions in freight rates be made..., B. The determination of what is a reasonable rate of return...C. Amendments to the Transportation Act...D. Valuation of railroads.

81. Traffic publishing company, inc. The freight traffic red book. A practical reference book for those actively engaged in traffic work; an everyday guide for the shipper; a condensed but comprehensive text book for the student of freight transportation. Compiled and edited by Charles J. Fagg. New York. 289.2 T67
The Library of the United States Department of Agriculture has 1922-date.
Includes information on rate factors, freight classification, rate territories, rate bases, demurrage, storage, lighterage, routing, transit privileges, various acts having to do with transportation, car service rules, air transportation, etc.
A traffic glossary is included.

82. Transportation association of America. A national transportation program: v. 1. Recommendations and conclusions; v. 2. History of regulation and brief outline of the transportation problem upon which recommendations and conclusions in volume 1 are based. 2v. Chicago, 1938. Ry. Econ. Libr. HE2757 1938.T7
Supplement 1, A review of experiences under monopoly and the Principles of Unrestrained, and Enforced, Competition in Transportation. 12pp.
Supplement no. 2, A History of Railroad Land Grants. 24pp.

83. Transportation conference. Report of the Transportation conference of 1933-4. 58pp. [Chicago] 1934. 289.9 T68
Subjects discussed were: Government versus private ownership of transportation facilities and services; The regulation of the rates and services of interstate carriers; Competition versus coordination in transportation; and Organization of the transport regulatory agencies.

84. Transportation conference. Transportation conference of 1933-5: proceedings of the tenth meeting...Washington, D. C., February 26-27, 1935. 113pp. [Chicago] 1935. 289.9 T68P
The conference was devoted to a discussion of pending legislation.

85. U. S. Department of agriculture. Yearbook of agriculture. Washington, U. S. Govt. print. off. 1 Ag84Y

The Library of the U. S. Department of Agriculture has 1894 to 1938. 1936-date statistics issued in separate form (1 Ag84Y 1936-A)

Articles of interest to this bibliography are as follows:

1920: Roads, by H. S. Fairbank, pp. 339-352.

1924: Highways and highway transportation, by T. Warren Allen, A. B. Fletcher, A. T. Goldbeck, E. W. James, J. Gordon McKay, H. R. Trumbower, and H. S. Fairbank, pp. 97-184.

1926: Crates for livestock built to fit the animals, by T. A. Carlson, pp. 283-285; Freight rates since war period, by B. R. Gould, pp. 390-391; Highways and how they are paid for, by H. S. Fairbank, pp. 412-415.

1927: Fruits and vegetables distributed by auto truck to small towns, by J. W. Park, pp. 337-339; Sheep crate should protect as well as confine the animal, by T. A. Carlson, pp. 576-577.

1928: Freight-rate charges under Hoch-Smith law help in farm relief, by Thor Hultgren, pp. 334-336; Highway needs are indicated by taking censuses of traffic, by H. S. Fairbank, pp. 358-361; Milk transportation in tanks coming into use widely in U. S., pp. 446-449; Milk stations for cooling product help maintain its quality, by C. E. Clement, pp. 462-464.

1930: Fruit and vegetable receipts by truck at New York recorded, by J. W. Park, pp. 287-289.

1931: Gasoline taxes nearly all used for building and maintaining roads, by H. S. Fairbank, pp. 272-274; Roads of traffic-bound type meet needs of some sections at low cost, by R. E. Royall and A. G. Bruce, pp. 466-469.

1932: Orange refrigeration in ocean transport is best when fruit is precooled, by W. R. Barger, pp. 276-277; Road building on secondary or local projects is progressing, by Thomas H. MacDonald, pp. 321-325.

1933: Methods of handling, transporting, and storing perishables improved, by D. F. Fisher, pp. 348-354.

1935: Transit-refrigeration charges on fruit reduced by recent discoveries, by D. F. Fisher and C. W. Mann, pp. 317-319.

Statistics include carlot shipments of various commodities by State of origin; unloads at various markets; receipts at various cities; road mileage under State control, including Federal-aid system; index numbers of freight rates on livestock, wheat and cotton; Freight tonnage originating on railways in the United States. Motortruck receipts are included for some commodities.

These statistics vary with the different issues.

86. U. S. Department of commerce, Bureau of foreign and domestic commerce. Commerce yearbook. Washington, D. C. 157.54 Y3

The Library of the U. S. Department of Agriculture has 1922 to 1932. After 1932, the domestic portion of the yearbook no longer issued.

Contains a section on Transportation and Communication. This includes information and statistics on railways, loss and damage claims, and packing; motor and water transportation.

87. U. S. Department of commerce, Bureau of foreign and domestic commerce. Statistical abstract of the United States. Washington, U. S. Govt. print. off. 157.9 St2

The Library of the U. S. Department of Agriculture has 1878 to date.1st, 1878 to 25th., 1902 prepared by the Bureau of Statistics, under the direction of the Secretary of the Treasury.

26th., 1903 to 34th., 1911, prepared by the Bureau of Statistics, under the direction of the Secretary of Commerce and Labor.

35th., no. 1912, prepared by the Bureau of Foreign and Domestic Commerce, under the direction of the Secretary of Commerce and Labor.

36th., 1913 to date, prepared by the Bureau of Foreign and Domestic Commerce, under the direction of the Secretary of Commerce.

Section 20, Transportation, Air and Land - Steam and Electric Railways, Express Companies, Motor Busses, and Civil Aeronautics, includes statistics of railway mileage, equipment, employees, capitalization, revenue, revenue freight carried; and summary of statistics of civil aeronautics. Revenue freight carried is listed by commodity groups and by classes of commodities. Under agricultural products are listed wheat, corn, oats, other grain, flour and meal, cereal foods and other mill products, hay, straw and alfalfa, leaf tobacco, cotton, cottonseed and products, except oil, citrus fruits, other fresh fruits, potatoes, except sweet, other fresh vegetables, dried fruits and vegetables, sugar beets, horses and mules, cattle and calves, sheep and goats, and hogs.

Section 21, Waterways, Water Traffic, and Shipping, includes: Cargo tonnage of water-borne commerce of the United States: Aggregates; New York State canals: tonnage of freight moved; St. Mary's Falls Canal; general traffic statistics; Ohio River traffic; tonnage, ton-mileage, and value of freight; Lower Mississippi River traffic: freight by sections; Merchant Marine: number and tonnage of vessels by class and utilization, 1789 to [date] and by location, power, and material, 1910 to [date]; Tonnage of water-borne imports and exports: by coastal districts, individual countries, States and ports, major commodities and coastal districts; etc.

88. U. S. Federal coordinator of transportation. Conclusions...on merchandise traffic. 28pp. Washington, D. C., May 1936. 289.2 Un37C

Approves the Merchandise Traffic Report of the Section of Transportation Service and compares this report with the report made by a national committee of railroad officers.

89. U. S. Federal coordinator of transportation. [Press releases] 6 v., processed. [Washington, D. C., 1933-36] 289 Un3

[v. 1-2] consist of addresses made by the Coordinator before various organizations.

These are in part:

v. 1: Address before the Interstate Bus and Truck Conference, Harrisburg, Pa., Oct. 20, 1933. 15pp. (Discusses Public regulation of motor vehicles and other forms of transportation and mentions

motor vehicles as auxiliaries to rail service.);

Address before the Associated Traffic Clubs of America, Baltimore, Oct. 24, 1933. 18pp. (The less-than-carload freight problem, the need for studying the manner in which merchandise traffic is handled and probable opportunities for improvement).

Address before the Railway Business Association, Chicago, Ill., Nov. 9, 1933. 17pp. (Describes the work of the Section of Purchases in standardization and simplification of types and practices, and the work on terminal unification and simplification.);

Address before the National Rivers and Harbors Congress, Washington, D. C., Apr. 30, 1934. 12pp. (A discussion of regulation of transportation facilities and especially of water carriers.);

Coordinating transportation in the United States. Address before the National Association of Commercial Organization Secretaries, Washington, D. C., May 2, 1934. 15pp.

Some thoughts on the railroad future. Address before the National Association of Mutual Savings Banks, New York City, May 16, 1934. 19pp.

Address before the New York Bond Club, New York City, June 5, 1934. 15pp. (Discusses railroad problems in the fields of finance, traffic, operation and management).

Address before the American Association of Port Authorities, New York, Sept. 13, 1934. 14pp. (Problems of rail-water terminals).

Address before the National Petroleum Association, Atlantic City, N. J., Sept. 19, 1934. 14pp. (Railroad problems).

Relation of the motor carrier to the transportation problem. Address before the National Association of Motor Bus Operators, Cleveland, Ohio, Sept. 21, 1934. 17pp.

The shipper and the railroads. Address before the Chicago Association of Commerce, Chicago, Ill., Oct. 10, 1934. 15pp.

Federal regulation of motor trucks. Address before the American Truckings Associations, Inc., Chicago, Ill., Oct. 22, 1934. 15pp.

Railroad problems. Address before the Birmingham Traffic and Transportation Club, Birmingham, Ala., Nov. 5, 1934. 16pp.

The transportation future. Address before the Atlanta Freight Bureau, Atlanta, Ga., Nov. 6, 1934. 16pp.

Coordinated transportation regulation. Address before the National Industrial Traffic League, New York, Nov. 14, 1934. 16pp.

Federal regulation of water carriers. Address before the Mississippi Valley Association, St. Louis, Mo., November 26, 1934. 17pp.

Address before the Boston Chamber of Commerce, Boston, Mass., Dec. 20, 1934. 17pp.

v. 2: Our transportation problem, Address before Hartford Chamber of Commerce, Hartford, Conn., Feb. 7, 1935. 15pp.

The Transportation situation, Address before the Chamber of Commerce of the State of New York, Mar. 7, 1935. 15pp.

Federal regulation of water carriers. Address before the Propeller Club of the United States, Port of Philadelphia, Philadelphia, Pa., Apr. 27, 1935. 15pp.

Address before the National Rivers and Harbors Congress, Washington, D. C., May 2, 1935. 9pp. (on regulation of transportation facilities)

Address before the Wharton School of Finance and Commerce, University of Pennsylvania, Philadelphia, Pa., May 9, 1935. 16pp.

The motor truck and the government. Address before the Motor Truck Club of Massachusetts, Boston, June 11, 1935. 15pp.

Looking ahead in transportation. Address before National Association of Credit Men, Pittsburgh, Pa., June 20, 1935. 16pp.

Mechanical progress in transportation. Address before the Society of Automotive Engineers, White Sulphur Springs, W. Va., June 20, 1935. 14pp.

Address before the American Association of Motor Vehicle Administrators, Chicago, Ill., Oct. 10, 1935. 15pp. (on regulation of motor vehicles)

Address before the American Trucking Associations, Chicago, Ill., Oct. 14, 1935. 16pp. (on motor vehicle regulation)

Address before the Association of Port Authorities, Houston, Texas, Nov. 11, 1935. 16pp. (on regulation of water carriers)

What is ahead in transportation? Address before the annual conference and banquet of the Associated Business Papers, Inc., New York, Dec. 2, 1935. 12pp.

Address before the Association of Marine Terminal Operators - Atlantic Ports, Jacksonville, Fla., Jan. 13, 1936. 15pp.

Statement in regard to proposed orders requiring certain unifications of railroad terminal facilities. Feb. 1, 1936. 8pp.

Agriculture and transportation. Address before the Sioux City Chamber of Commerce Forum Committee, Sioux City, Ia., Mar. 7, 1936. 15pp.

Address before the Chicago Traffic Club, Chicago, Ill., Mar. 9, 1936. 14pp.

Address before the Transportation Conference, Detroit, Mich., Mar. 19, 1936. 15pp.

Transportation. Address before the Engineers' Club of the Lehigh Valley, Bethlehem, Pa., Apr. 13, 1936. 15pp.

The future of transportation in the United States. Address before the American Institute of Cooperation, Urbana, Ill., June 16, 1936. 21pp.

v. 4: Statement...dealing with the subject of a clearing house for the settlement of inter-road accounts of the railways of the United States... 67pp. March 30, 1934.

An outline of functions and organization of the Federal Coordinator of Transportation. 26pp. April 3, 1934.

The necessity for simplified division bases in connection with interline waybilling, by C. E. Hildum. Read before the Rules and Regulations Committee, Central Freight Association, Chicago, Jan. 9, 1917. 4pp.

v. 5: [Reports dealing with the operation of railroad-owned terminal grain elevators]. various paging. August 30, 1934.

Report and recommendations of the Joint committee appointed by the Science Advisory Board and the Regional coordinating committees of railway executives to study the matter of research methods and possibilities in the railway field. 23pp. October 9, 1934.

v. 6: Statement...in regard to freight-car ownership costs versus car hire. 14pp. February 11, 1935.

Statement by Charles E. Bell...regarding proposal under consideration to establish loading and unloading charges at United State ports on export, import, intercoastal and coastwise traffic. 15pp. Apr. 13, 1935.

Technical improvements in railroad equipment, roadway and structures. 31pp. May 31, 1935.

90. U. S. Federal coordinator of transportation, Section of research. Public aids to transportation. Volumes I-IV. Washington, U. S. Govt. print. off., 1938-1939.

Published after expiration of Emergency Railroad Transportation Act of 1933.

This study, which was directed by Dr. Charles S. Morgan, Director, Coordinator's Section of Research, is not yet available as this bibliography goes to press.

The supply available for distribution by the former Federal Coordinator of Transportation is limited.

Volume I will consist of a General Comparative Analysis, and Public Aids to Scheduled Air Transportation.

Part I of this volume, the General Comparative Analysis, contains a general summary of results of the underlying reports and an appraisal of their significance; also a discussion of problems arising from public aids to transportation.

Part II of volume I. Public aids to scheduled air transportation, includes an analysis of aids given through mail contracts and through government provision of airways, airports, etc.

Volume II. Aids to Railroads and Related Subjects will contain three parts: I. Aids to railroads; II. The taxation of railroads; III. Non-productive expenditures of railroads.

Volume III. Public Aids to Transportation by Water will consist of three parts: I. Waterway improvements and related aids; II. Government transportation operations on inland waterways; an analysis of the Inland waterways corporation; III. The Panama canal.

Volume IV is entitled "Public Aids to Motor Vehicle Transportation - An Analysis of Highway and Street Costs and Motor Vehicle User Payments." It will include a survey of the annual costs of highway and street improvements; an analysis of the portion of such costs which should be borne by motor-vehicle

users as a class and comparison with payments they have made; determination of costs which are assignable to different classes of vehicles and comparison with the payments made by these different classes.

91. U. S. Federal coordinator of transportation, Section of transportation service. Freight traffic report. 3v. Washington, D. C., 1935. 289 Un32F

"This report is the result of a study which undertook to get the basic, fundamental facts in regard to this traffic, including the unit costs of every phase of operations, the character of service furnished and equipment used, the rates charged, and the extent to which present methods and practices are or are not well suited to modern commercial needs and competitive transportation conditions. These facts have been obtained, not only for the railroads, but for the other forms of transportation, so that comparisons can be made..."

The Library of the U. S. Department of Agriculture has also Appendixes I-III. (289 Un32Fa)

92. U. S. Federal coordinator of transportation, Section of transportation service. Merchandise traffic report. 422pp. Washington, U. S. Govt. print. off., 1934. 289 Un32

The term "merchandise" as used in this report embraces "all property transported by carriers except milk, property shipped in carload lots, and property transported by pipe lines. The carriers whose operations are covered by the report include railroads, express companies, forwarders, water carriers, and highway carriers. The report is in three sections. The first section contains a summary of the relevant facts, which is elaborately supported by exhibits. The second section is a brief diagnosis of the conditions shown by the survey to require correction, and of the causes which produce those conditions, together with an indication of the general nature of the remedy which must be applied. The third and final section outlines definitely a possible remedy."

93. U. S. Interstate commerce commission. List of corporate names of common carriers filing tariffs, concurrences, or powers of attorney with the Interstate commerce commission, and compiled from its records. nos. 1-3, and supplements. Washington, U. S. Govt. print. off., 1926-1935. Libr. Cong. HE2708.I723

94. U. S. Joint commission of agricultural inquiry. Report...Part III. Transportation. 67th Cong., 1st. Sess., House Rept. 408, pt. 3, 686pp. Washington, D. C., 1922. 281 Un33A

Partial contents: Ch. I. Economic relationship of agriculture, industry, and transportation; II. Transportation by steam railroads; III. Railroad management and organization; IV. Railway finance; V. Railroad express companies; VI. Parcel post; VII. Electric railways; VIII. Highway transportation; IX. Transportation by water; X. Federal and State regulation of transportation; XI. Foreign railway systems; XII. History of railway transportation; Definitions of railroad terms.

The Summary, pp. 3-8 carries the recommendations and findings of the commission in regard to transportation.

The recommendations include: 1. Immediate reductions in transportation rates applied to farm products and other basic commodities; 2. That the railroads and the public rate-making bodies should seek to readjust rates so as to preserve in so far as practicable the general relationship of rates existing prior to 1918, with due regard to present and future changes in economic conditions; 3. That in establishing rates, Federal and State regulatory bodies give greater consideration to existing and prospective economic conditions and to relationships between the price and the rate level; 4. That regional agencies of the Interstate Commerce Commission be established; 5. That the Government enter into immediate negotiations with the government of Canada for the conclusion of a treaty for the improvement of the St. Lawrence River; 6. Complete standardization of all freight equipment, except with respect to cubical and weight-carrying capacity; 7. The unification and joint operation of facilities at terminals; 8. Prompt consideration and adoption of a comprehensive plan for central control and distribution of freight cars; 9. That railroads and shippers cooperate to secure the full utilization of the carrying capacity of cars wherever possible; 10. That the supply of box cars (freight, coal, stock and refrigerator) is inadequate to meet the demand; 11. That the number and efficiency of refrigerator cars should be increased; 12. That bad order cars should be promptly repaired; 13. That a large proportion of cars should be made fit for bulk grain loading; 14. That the number of locomotives owned by some railroads is inadequate; 15. That terminal facilities should be increased; 16. That there should be complete correlation of ore and coal facilities at Lake Erie ports; 17. That permanent joint railroad and shippers' committees be organized to carry on a campaign to reduce loss and damage of goods in transit; 18. That freight-revenue divisions should be promptly revised to the basis of two-figure percentages; 19. That regional clearing houses be established for the current settlements of debts and credits growing out of rate divisions; 20. That the railroads should adopt universal through waybilling of interline freight; 21. That the railroads be required to maintain complete cost data; 22. That they be required to adopt better systems for checking the extent and value of repairs to equipment when made by lines other than the line owning the car; 23. That the railroads establish regional-

traffic executives; 24. That the relations between the public and the railroads be improved; 25. That the Interstate Commerce Commission investigate the development and correlation of the various systems of transportation and their relation to agriculture, industry, trade, and commerce; 26. That the bill "To provide for classification of civilian positions within the District of Columbia and field service" shall not apply to employees of the Interstate Commerce Commission; 27. That Congress continue to promote an adequate program of highway construction and maintenance; 28. That the program of highway construction and the maintenance by States and counties be continued under the direction of qualified experts with particular reference to farm-to-market roads. 29. That a uniform basis for taxing motor trucks and other motor vehicles which shall represent the reasonable proportion of the cost of highway construction and maintenance chargeable to such vehicles be effected by the several States; 30. That a study be made of postal rates with a view to readjustment and the removal of inconsistencies; 31. No recommendation is made as to government aid to American shipping.

95. U. S. National resources committee, Subcommittee on technology. Technological trends and national policy including the social implications of new inventions. Report. 388pp. Washington, U. S. Govt. print. off., 1937. 173.2 N214T

Section III of Part three, Transportation, by Harold A. Osgood, pp. 177-209 includes: The general future of transportation; Highway transportation; Water-borne transportation; Railway transportation.

The future social implications of transportation are discussed on pp. 206-208.

96. U. S. President's committee to submit recommendations upon the general transportation situation. Report of committee appointed September 20, 1938. 88pp. [Washington, D. C., Allied printing trades council] 1938. 289 Un38

The report of the committee covers 36 pages. A Survey of Transportation in the United States appears on pp. 37-64. An Appendix showing statistics is included on pp. 65-88.

Recommendations include: Adoption by the Government of a definite national transportation policy; Expansion of the jurisdiction of the Interstate Commerce Commission; Revision of the rate-making rule; Repeal of the long-and-short haul clause; Amendment of sections relating to reparation; Extension of the power of the Commission with respect to intrastate rates; the creation of a transportation board; Tolls for the use of improved waterways; Legislation to relieve the railroads of unjust tax burdens; Reconstruction of bridges and other facilities in connection with waterway improvement; Repeal of land-grant rates; Establishment of a reorganization court; Restoration to the carriers for responsibility of consolidation; Enlargement of the powers of the Reconstruction Finance Corporation in making loans to railroads.

An article by D. Philip Locklin, discussing the report appeared in Jour. Land and Pub. Utility Econ. 15(1): 117-119. February 1939. 282.8 J82

97. Van Cleef, Eugene. Trade centers and trade routes. 307pp. New York, London, D. Appleton-Century company, inc., 1937. (Century-earth science series, ed. by Kirtley F. Mather) 286 V27
A selected bibliography of works in English, pp. 271-276.
Part II. Trade Routes, includes these chapters; XVI. Transportation service - The railroad and merchant marine and Ch. XVII. Service of the motor vehicle. (Includes aerial conveyances).
Chapters VIII and IX of Part I are entitled respectively "The Ocean Port as a Trade Center"; and "Types of Ocean Ports."

98. Walker, John E. Transportation and taxes; extension of an address before the sixteenth annual meeting, national tax association, White Sulphur Springs, W. Va. 24pp. [New York, National automobile chamber of commerce, 1923] 284.5 W154T

99. Warfield, S. Davies. National character of transportation. Obligations imposed by United States supreme court. Transportation as a whole - economies and freight rates. Labor and the railroads. The Labor board. The commission. 34pp. Baltimore, National association of owners of railroad securities. 1922. Ry Econ. Libr. HE2757 1922.W23

100. Wheeler, Harry A. A national transportation policy. Grain & Feed Jours. Consolidated 71(6): 249, 251. Sept. 27, 1933. 298.8 G762
Address before the Grain & Feed Dealers National Association, Chicago, Ill.
Discusses five questions involved in the formulation of a national policy. These are: The ownership of transportation facilities; the extent to which in competition a commingling of public and private ownership can be equitable and practicable; The measure and similarity of regulation to be imposed upon all agencies of transportation; regulation under a single agency; and the principle of extended public ownership as a part of a national policy.

101. Wilson, George Lloyd. Facing the transportation crisis. Traffic World 48(6): 289-291. Aug. 8, 1931. 288.8 T672
Discusses competition among carriers, governmental regulation, coordination, etc.

102. Wilson, George Lloyd. Is a sound transportation policy possible? Traffic World 51(7): 347-349. Feb. 18, 1933. 288.8 T672

103. Wilson, George Lloyd. The transportation crisis. 335pp. New York, Holston House, Sears publishing co., inc., 1933. 289 W69
This book "attempts to consider soberly the facts behind the present condition and to counsel the immediate formulation of a sound policy of use and regulation of all types of transportation utilities, so that all, through judicious use and constructive regulation, may be enabled to serve the public adequately for reasonable compensation..."

In conclusion, the author advocates the regulation by the Interstate Commerce Commission of all forms of transportation - passenger or freight - railroad, electric railway, pipe line, highway transportation, ocean carriers, inland and coastal waterway carriers, and air transport.

The various forms of transportation and the crisis in each are described.

104. Wyer, Samuel S. Fundamentals of transportation problem. Prepared for Fuel-power-transportation educational foundation. 62pp. Columbus, Ohio, Fuel-power-transportation educational foundation, 1928. 289 W97

Includes brief discussion of railroad freight service and of regulation of transportation utilities.

Competition between Carriers

105. Association of American railroads. Tax-paying and tax-spending transportation. 1. The tax burden of "cheap water transportation"; 2. The tax contribution of railroads. A study in contrast. 24pp. Washington, D. C., 1935. Pam. Collect. (Transportation)

"The study is in five parts: 1. The burden of 'cheap water transportation' upon taxpayers; 2. The railroad and the inland community; 3. Land grants, their purpose and their effect; 4. The tax contribution of railroads; 5. The true cost of transportation."

106. Chamber of commerce of the United States of America. Competing forms of transportation. Committee report. 29pp. Washington, D. C., 1933. 289 C35C

Water and highway transportation are discussed. Rates and regulation of each are included.

107. Chamber of commerce of the United States of America. Referendum no. 65 on the report of the Special committee on competing forms of transportation. 27pp. Washington, D. C., 1933. 289 C35R

108. Craven, Leslie. The problem of railroad competition. Amer. Econ. Rev. 25(1): 102-110. March 1935. 280.8 Am32

Discussion, by I. L. Sharfman, pp. 128-132; by S. L. Miller, pp. 132-135.

The principal co-ordinative economies short of actual consolidation are listed as: The pooling of freight cars; consolidation of terminal facilities; and pooling of carload freight and passenger business. Any or all of these, it is believed, would result in substantial savings.

Competition is now complicated by the development of carriers other than railroads.

The Prince plan, which would consolidate the roads into seven regional systems is discussed.

109. Eastman, Joseph B. Transportation by rail and otherwise. Amer. Econ. Rev. Sup. 22(1): 247-255. March 1932. 280.8 Am32

Discussion by Marvin L. Fair, pp. 267-271, by Howard C. Kidd, pp. 271-272; by Shorey Peterson, pp. 272-274; by D. Philip Locklin, pp. 274-276.

This is a discussion of competition in the transportation industry, not only of the competition of railways with other forms of industry, but also of competition between different railway systems.

In conclusion, Mr. Eastman says:

"Summing up the situation, the new competition by which the railroads are confronted does very naturally create apprehension with respect to future railroad earnings. However, this competition affects only a lesser part of railroad traffic. Moreover, if the apprehension leads, as it now seems that it will, to a stimulation, first, of co-operation of railroads with each other; second, to a like stimulation of initiative and enterprise in readjusting service and rates to meet the new conditions; and, finally, to a thorough consideration of the need for extension or modification of the system of public regulation, my own belief is that the railroads will be able to work out their salvation and emerge from this plight as they have from others in the past."

110. Freight? Express? or Motor truck? A comparative study of transportation costs. Com. Car Jour. 37(1): 14-17. March 1929. 291.8 C73

"This study is presented to illustrate graphically the methods of analysis a shipper should utilize in determining the type of carrier affording him the cheapest transportation between given points..." - Editor's note.

111. Galloway, George B. Competition in transportation. Editorial Research Repts. 1(12): 199-215. Washington, D. C., 1931. 290 Ed4

Discussion is included of railroads and the new competition; the post-war decline in railway traffic; post-war growth of automotive traffic; Development of waterway traffic; post-war progress of civil aeronautics (including government aid in development of airways); and the need for a national transportation policy.

112. Hall, James Kendall. Trucks and busses in competition with the express company in Oregon. Commonwealth Rev. 60(2): 1-50. April 1927. Libr. Cong. HC107.O7C8

Contents: I. History and origin of the bus and truck service in the State of Oregon; II. Trucks and busses as common carriers; III. The express service in Oregon; IV. Regulation by State of trucks and busses and the express company as common carriers; V. Comparison of the two carrier services; Conclusion.

113. Lee, Elisha. ...If railroads can be relieved of subsidized competition by governmental enterprises they will have nothing of which to complain. Com. & Financ. Chron. 133(3451): 1064-1065. Aug. 15, 1931. 286.8 C73

Address before National Petroleum Association, Apr. 24, 1931.

114. Lisman, Frederick J. Whither are the railroads drifting? How facing competition from airway, auto truck and waterway - These forms of transportation must be properly coordinated. Railway Age 85(23): 1132-1134. Dec. 8, 1928. 288.8 R136
Discusses the competition which railroads are facing from the air, from trucks, and from waterways. Includes discussion of store door delivery.

115. New York trust company. Competitive equality for the railroads. N. Y. Trust co. Index 11(1): 1-6. January 1931. 280.8 N48
Cites the problem of achieving adequate revenues for the railroads as one of the most important current questions before the country.

116. Porter, Claude R. Our railroads in the next ten years. Nation's Business 19(1): 20-22, 64, 66, 68, 70, 72, 74, 76, 78. January 1931. 286.8 N212
Describes the emergency created by four competitors of the railroads - the airplane, the inland waterway, the motor bus and truck, and the pipeline.

117. Pycatt, J. S. Panama Canal and motor competition felt. Railway Age 80(1): 10-11. Jan. 2, 1926. 288.8 R136
The president of the Denver & Rio Grande Western says that in the matter of through freight traffic, they, like all other western lines feel "rather severely the effect of Panama Canal competition."

118. Sargent, Fred W. The menace to the railroads. Traffic World 47(4): 223-224. Jan. 24, 1931. 288.8 T672
Address before the Milwaukee Traffic Club, Jan. 21, 1931.
The menace to the railroads through competition of other forms of transportation is the subject of the discussion.

119. Security owners association. Statement before the National transportation committee. Digest of studies relating to highway, waterway, airway competition with rail carriers. 80pp. New York [1932] 289 Se2
The statement before the National Transportation Committee which covers 45 pages contains I. Equal regulation of all transportation agencies; II. Transportation consolidation; III. Section 15a; etc.

120. Stephenson, Rome C. Why not treat them fairly? Amer. Bankers Assoc. Jour. 23(9): 740-741. March 1931. 284.8 Am3
Also issued in Railway Age 90: 540-542. Mar. 14, 1931 with title: Tax Aided Competition Denounced by Bank Leader.
"Tax-bound and enmeshed in countless regulations and restrictions, the nation's railroad systems face their post-war competitors under serious handicap. Outcome touches directly interests of hundreds of thousands of stockholders."

121. Stevenson, John. Loss of railway traffic to competing carriers. Economist (Chicago) 93(4): 96, 98. Jan. 25, 1935. 286.8 Ec73

Railroads vs. Trucks

122. Albig, W. Espey. The rule-bound railways versus busways and truckways. What is the public paying for this one-sided regulation? Amer. Bankers Assoc. Jour. 25(3): 20-21, 56. September 1932. 284.8 Am3

123. American national live stock association. Rail or truck. Producer 13(10): 22. March 1932. 49 P94
Says that "the railroads are taking full advantage of the present situation to press for legislation that will not only regulate, but in some cases seriously cripple, trucks as either intrastate or interstate carriers of freight..."

124. Banham, W. J. L. Motor truck and railroad freighting. Comparisons as to cost, range, and service of moving less than carload shipments via freight to short-haul points and the movement of the same class of freight via motor trucks. 4pp. New York, National automobile chamber of commerce, inc., 1920. Ry Econ. Libr. HE1048.B22

125. Bird, Aldine R. Motors' challenge to the railroads. Current Hist. 34(2): 238-241. May 1931. Libr. Cong. D501.N5
Stresses the need for regulation of motor trucks and discusses losses to the railroads because of their development.

126. Blaine, Charles E. Transportation problems and their solution. Producer 14(10): 3-6. March 1933. 49 P94
Address delivered at the annual convention of the American National Live Stock Association, Ogden, Utah, January 12-14, 1933.
Mr. Blaine discusses the competition between rail and motor transportation and the attitude of the railroads toward it. The trucks, he says, are not responsible for the loss of railway traffic. He discusses the vast land grants which were given to the railroads. Trucks, although their operating costs are higher than those of the railroads, are giving people lower rates.

127. Booth, Robert K. The wild cat truckers and the railroads. Transportation 8(3): 19-21. March 1931. Libr. Cong. HE1.T85
"...it is of interest to see what competitive conditions exist within the trucking industry itself, considered apart from the railroads. The United States bureau of public roads has made an estimate placing the total number of trucks at 3,400,000. Of this number 82 percent are owned by the shipper and compare with the private automobile from a competitive standpoint. Eleven per cent are owned by the contract carriers, often termed "wildcatters", and are the thorn in the side of the industry. Seven per cent operate as common carriers, and of this seven per cent only about a third operate over regular routes, between fixed termini and with a published tariff."

128. Brosseau, Alfred J. Rails, regulation and motor transport. 7pp. New York, National automobile chamber of commerce, 1929. Ry Econ. Libr. HE5623.B79C

129. Budd, Ralph. Highway transportation and the railways. Railway Age 80(21): 1157-1162. April 24, 1926. 288.8 R136
The motor truck and its regulation are discussed on p. 1160.

130. Budd, Ralph. Railways and highways. How the development of motor transportation has affected the railways - Regulation and taxation discussed. Railway Age 86(13): 740-741. Mar. 30, 1929. 288.8 R136

131. Cornwell, John J. The railroad situation. Md. Agr. Soc. Rept. (1932)17: 225-236. College Park. 4 M366
Deals mainly with unregulated truck competition.

132. Duncan, Carson Samuel. Highway competition - subsidy - how to determine it. 14pp. Washington, D. C. [Association of American railroads], 1935. Ry Econ. Libr. HE5623.D882
Presents information and figures to establish the fact of subsidy, and says that "commercial operations on the highways should pay their full fair share of the costs of construction and maintenance, and a fair and proper tax on highway equipment or otherwise for the support of government."

133. Duncan, Carson Samuel. Railroads and highways. Farmers Elevator Guide 28(9): 18-19. September 1933. 280.28 Am3
Discusses four aspects in which, he says, the relationship between highways and rails is unfair and inequitable. "...The highway operator is relieved of interest charges on his roadway; the railway is not. The highway operator is relieved of taxes on his roadway; the rail operator is not. The highway operator is not required to pay fully even for the construction and maintenance of the roadway he uses. The railroads are required so to pay. The highway operator has no regulation as to interstate commerce and the states have passed inadequate laws that are, for the most part, inadequately enforced. The railroads are regulated in every important aspect of their operation..."

134. Dunn, Samuel O. Taxation and the railroads. Bus and truck operators in aggregate pay no taxes at all - What they pay is an entirely inadequate rental for commercial use of public property - Taxpayers meet the deficit. Railway Age 93(9): 285-286. Aug. 27, 1932. 288.8 R136
An address delivered over the radio on August 10 under the auspices of the Illinois Chamber of Commerce.

135. Elliott, G. B. The public and its railroads. 23pp. [n.p.] 1932. Ry. Econ. Libr. HE1048.E46
Address before Virginia Bankers' Association, Old Point Comfort, Va., June 24, 1932.
Unfair competition of trucks is the theme of this address.

136. Hall, Fitzgerald, and Van Doren, Ray N. What is fair competition? Views from the railway standpoint, on the public and transportation problems created by the advent of motor vehicles. Railway Age 90(23): 1108-1110, 1114. June 6, 1931. 288.8 R136

137. Hibbs, Ben. The transportation mess. Country Gent. 102(8): 3-5, 34. August 1932. 6 C833
Describes the controversy over rail and motor competition in the movement of freight.

138. Lee, Elisha. Railroads and trucks. What is a fair deal for both? Some practical suggestions for a co-operative solution. Address...delivered before the American society of civil engineers, Atlantic City, N. J., October 5, 1932. 11pp. [n.p., n.d.] Pam. Collect. (Transportation)
Discusses the competition of trucks with the railroads, which presents a grave problem, lists truck privileges vs. rail obligations; presents a program for fair and reasonable truck regulation; and describes the attitude of railroads and trucking enterprises toward the problem of regulation.

139. Lee, Elisha. Trucks, railroads and farm-to-market roads. Power Farming 32(5): 5, 8-9. May 1923. 58.8 T41
Portions of an address before the Society of Automotive Engineers. "Are we taxing ourselves to build the kind of roads we want, or to subsidize commercial operators of intercity freight lines running vehicles of excessive weight."

140. MacClay, Sam. Motor truck competition and its effect on the railroads of Canada and the United States: what is the solvent? World Ports 21(4): 8-9, 29. February 1933. Libr. Cong. HE553.A55

141. National automobile chamber of commerce, National motor truck committee. Place of train, trolley, truck and bus in New England. 24pp. New York, 1925. (no. 205) Ry Econ. Libr. HE199.N211

142. Railroads versus motors; the controversy between the railroads and the motor carriers has recently been the cause of more intense bitterness than ever before: the railroads claim they are unfairly treated and cannot compete with rivals subsidized by the government. Bradstreet's 59(2751): 205, 208. Mar. 21, 1931. 286.8 B72

143. Riggs, Henry E. Effect of highway development on other transportation. Manfrs. News 30(4): 41-42, 56, 58. October 1926. Libr. Cong. HD9720.1.M3
Discusses mainly the effects of highway development on the railways.

144. Rogers, Clyde L. Why the railroads have failed in their efforts to halt traffic diversion. Annalist 44(1136): 581-582, 606. Oct. 26, 1934. 284.8 N48
Motor carrier competition is blamed for this failure.

145. Rossman, Laurence Alonzo. The taxation of transportation. 12pp. Grand Rapids, Minn., The author, 1934. Libr. Cong. HE1071 R6
Compares taxation of railroads with taxation of automotive transportation.

146. Schlosser, Samuel. Transportation, trucks, and taxes. A consideration of the railroad and motor truck competitive situation presented clearly and concisely. Amer. Creamery 75(19): 664-666, 668. Mar. 8, 1933. 286.85 N482
Address before American Association Creamery Butter Manufacturers, Chicago, Nov. 29th, 1932.

147. Shannon, Homer H. Freight leaving rails for rubber. Traffic World 47(8): 469, 472-473. Feb. 21, 1931. 288.8 T672
A discussion of railroad loss of freight to the motor truck using shipments of paper from the Kalamazoo district as an example.

148. Shannon, Homer H. Packing and loading and rail-truck competition. Traffic World 50(15): 655-657. Oct. 8, 1932. 288.8 T672
"Variety of answers to questions as to whether railroad rules covering packing and loading drive business to trucks..."

149. A survey of the bus and truck situation. Highway competition seriously affecting railway revenues; suggestions for solution of the problem. Railway Age 79(23): 1023-1028. Dec. 5, 1925. 288.8 R136
This is one of two articles "regarding motor bus and truck transportation, the information in which is derived from various sources, but mainly from the answers made by railway presidents throughout the country to a questionnaire sent to them recently by the Railway Age..."
The second article was issued in Railway Age 79(24): 1077-1082. Dec. 12, 1925 under title "Meeting the Competition of Buses and Trucks."

150. Texas motor transportation association. Comparative taxation of railroads and motor vehicles in Texas. 12pp. Austin, Jan. 5, 1933. Pam. Collect (Texas motor transportation association)
"This comparison is made necessary by repeated railroad charges that 'Truck competition' is 'subsidized' and does not pay taxes."

151. Turney, John R. The motor truck - a threat and an opportunity. Railway Age 91(19): 701-704. Nov. 7, 1931. 288.8 R136
Address before the Associated Traffic Clubs of America at Tulsa, Okla., Oct. 28, 1931.
Mr. Turney says the railroads must improve their service if they are to meet successfully the competition of trucks.

152. Wheeler, H. A. Brakes off the railroads: steam and steel can carry us back to prosperity if relieved of the dead load of unrestrained, subsidized competition. Commerce (Chicago) 29(11): 25-26, 32. December 1932. 286.8 C7312

According to Mr. Wheeler, highway transportation is the railroad's chief competitor.

153. Wilcox, Earley Vernon. The clash of the carriers. A challenge the railroads can meet. Country Gent. 101(7): 16-17, 32. July 1931. 6 C833

Advises railroads to meet the challenge of motor competition by coordinating motor and rail to give the best service.

154. Worley, John S. The imminent destruction of our railways due to competition by other unregulated transportation agencies. 8pp., processed. Detroit, Mich., Fruehauf trailer co., 1935. 289.2 W89

Address before the Chamber of Commerce at Flint, Mich., March 28, 1935.

Presents figures to show that the railroads' difficulties are not due to unregulated motor vehicle competition.

155. Young, L. B. Truck competition is taking the railways' carload traffic. Railway Age 89(13): 648-651. Sept. 27, 1930. 288.8 R136

Suggests that the railroads might well be given by the various regulatory bodies to which they report, whatever dispensation may be necessary to make the railroads, through the co-ordination of their rail facilities with motor transport, sufficiently flexible to meet truck competition as they find it.

Railroads vs. Waterways

156. Bledsoe, S. T. Government operation of Federal barge line in competition with rail and other transportation service. 22pp. [n.p.] 1932. Ry Econ. Libr. HE1049.B62

Includes discussion of Relative cost of river and rail transportation; Barge line handicaps; Unfair competition; Dependability of rail and water transportation compared; Regulation and discrimination; Land grants to induce railroad construction; and The test of transportation service.

157. Bureau of railway economics, Washington, D. C. Comparison of transportation costs by rail and via barge canal. Bur. Ry Econ. Bull. Misc. Ser.no.36(Consecutive no.293),16pp. Washington, D. C., 1925. 289.29 B89

Compares rail costs with costs on the New York State Barge canal and states in summarizing

"It is clear that when all legitimate elements are included and a fair comparison is made between rail and canal rates, the former, far from suffering thereby, appear to great advantage."

158. Love, John W. Is there room for both railroads and rivers? Nation's Business 18(3): 15-17, 216, 218. March 1930. 286.8 N212
In describing the Ohio River system of inland waterway transportation, Mr. Love believes that such government - improved rivers may bring about an entirely new set-up for transporting freight.

159. New York State barge canal conference. Costs by rail and New York canal. Traffic World 36(5): 250-251. Aug. 1, 1925. 288.8 T672

Containers*

160. About the package law effective Nov. 1. Market Growers' Jour. 45(8): 634. Oct. 15, 1929. 6 M34
This new container act completes the work of standardization started by the Standard Container Act of 1916.

161. Cotton-textile institute, inc., New uses section. Cotton bags for potatoes, fruit and nuts; a study of their present and potential use for retail packaging. 12pp. New York, 1930. 280.31 C82
The advantages of cotton bags for shipping as well as retailing potatoes, fruits and nuts are listed.

162. Florida. Department of agriculture. Standardization of wooden shipping containers. Legislation by Congress and thirty-five States protects buying public and simplifies manufacturing methods. Fla. Agr. Dept. Quart. Bull. 35(2): 56-61. Tallahassee. April 1925. 2 F66B
From the Barrel and Box.

163. Heck, George E. Design factors affecting the strength and rigidity of wooden crates. U. S. Dept. Agr. Circ. 236, 26pp. Washington, D. C., November 1932. 1 Ag84C

164. Huestis, Bronson L. Shipping containers. 139pp. New York, The Ronald Press co., 1925. (Ronograph library - no. 37) 280.3 H871
Partial contents: I. What a shipping container should do; IV. Crates; V. Wooden boxes; VI. Fiber and strawboard boxes; XI. Packing for export shipment; and XII. How containers are tested.

165. Keeley, John F. Packing for foreign markets. U. S. Dept. Com., Bur. Foreign and Dom. Com., Trade Prom. Ser. 1, 439pp. Washington, D. C., 1924. 157.54 T67
The construction of containers of various kinds is described in detail.
Packing methods for fresh fruits and vegetables, pp. 278-281; for eggs, pp. 282-283; for tobacco, p. 284.

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*See also containers under Agricultural commodities - Fruits and vegetables, Fruit.

Packing for parcel post and express shipments, both foreign and domestic is discussed on pp. 389-401.

166. Keeley, John F. Shipping. The importance of proper nailing. U. S. Dept. Com., Bur. Foreign and Dom. Com. Com. Repts. (1924)2(21): 492-493. May 26, 1924. 157.7 C76D

Since nailed wooden boxes are the containers most commonly used in export shipping, the importance of proper methods of construction and of nailing cannot be overestimated.

167. McQuat, Douglas D. New developments in packing and shipping. The increasing importance of shipping goods, particularly to export markets, in containers which will ensure their delivery in the best condition. Indus. Canada 28(12): 49-52. April 1928. Libr. Cong. HC111.I4

Various types of containers which have been found satisfactory are described.

168. Malcolmson, J. D., Embry, N. W., Muntwyler, L. E., and others. Trends in shipping container design. Amer. Mangt. Assoc. Job Order Production Ser. 6, 28pp. New York, 1933. 249.09 Am3J no. 6

169. Martin, C. C. Export packing. A guide to the methods employed by successful shippers. 723pp. New York, Boston, etc., American exporter, The Johnston export publishing co., 1921. 286 M36

Partial contents: Ch. I. The problem; II. What export merchants say about packing; III. The construction of boxes, crates and bales, by H. N. Knowlton; IV. Practical notes on export shipping, by M. C. Fitz Gerald; V. Official specifications - Export instructions; VI. Baling versus casing, by David T. Abercrombie; VII. The Forest products laboratory at Madison, Wisconsin; VIII. Climate and port facilities affecting manner of packing; X. Customs regulations as affecting packing; XX. Export packing of goods in cartons; XXI. Export shipments in barrels; XXII. Export shipments in bags, bundles and without packing; XXVI. Foreign parcel post shipments.

170. Parker, E. F. Interchangeable market boxes. Ia. State Hort. Soc. Trans. (1920)55: 337-339.

Describes the New England standard box, which was first adopted by Providence, R. I.

171. Plaskett, C. A. Packing for export shipment. Traffic World 48(17): 887-889. Oct. 24, 1931. 288.8 T672

The designing of containers and factors influencing their strength are discussed.

172. Plaskett, C. A. Principles of box and crate construction. U. S. Dept. Agr. Tech. Bull. 171, 133pp. Washington, D. C., April 1930. 1 Ag84Te

Literature cited, pp. 132-133.

The relation of transportation conditions to containers is discussed. Appendix G contains proposed U. S. specifications.

173. Poor use of second-hand containers. Hoosier Hort. 16(9): 139-141. September 1934. 81 In2H
Reasons against using second-hand containers are set forth.

174. Spilman, Harold Addison, and Davis, Robert W. Interchangeability of container parts in the southeast. Barrel and Box 31(3): 34-39. May 1926. 99.82 B27
This discussion refers particularly to the practices of manufacturers in Georgia, Florida and Alabama, and to fruit and vegetable containers.

175. U. S. Department of agriculture, Bureau of agricultural economics. Rules and regulations of the Secretary of Agriculture under the United States standard container act of 1928. U. S. Dept. Agr., Bur. Agr. Econ. Serv. and Regulat. Announc. 116, 5pp. 1928. 1 M34S

176. U. S. Department of agriculture, Forest service, Forest products laboratory, Madison. Wooden box and crate construction. 208pp. Chicago, Ill., National association of box manufacturers, 1921. 99.77 F76

177. U. S. Department of commerce, Bureau of foreign and domestic commerce, Transportation division. Packing for domestic shipment. Baling. Recommendations of the Advisory board of the United States Department of commerce on domestic packing. U. S. Dept. Com., Bur. Foreign and Dom. Com., Dom. Com. Ser. 16, 18pp. Washington, D. C., 1927. 157.54 D71
Agricultural products baled include broom corn, cotton, flax, fodder, hay, hops, straw, cane sorghum and tobacco.
The advantages in the use of bales (economy of space, savings in transportation costs, and savings in container costs) are set forth; and a discussion of methods of baling is included.

178. U. S. Department of commerce, Bureau of foreign and domestic commerce, Transportation division. Packing for domestic shipment. Cleated plywood boxes. Recommendations of the Advisory board of the United States Department of commerce on domestic packing. U. S. Dept. Com., Bur. Foreign and Dom. Com. Dom. Com. Ser. 11, 15pp. Washington, D. C., 1927. 157.54 D71
Discusses plywood construction, standard plywood boxes, hinged-corner boxes, plywood boxes in export service, interior packing, and marking for shipment.

179. U. S. Department of commerce, Bureau of foreign and domestic commerce, Transportation division. Packing for domestic shipment. Cooperage and steel barrels. Recommendations of the Advisory board of the United States Department of commerce on domestic packing. U. S. Dept. Com., Bur. Foreign and Dom. Com. Dom. Com. Ser. 13, 32pp. Washington, D. C., 1927. 157.54 D71

180. U. S. Department of commerce, Bureau of foreign and domestic commerce, Transportation division. Packing for domestic shipment. Fiber containers. Recommendations of the Advisory board of the United States Department of commerce on domestic packing. U. S. Dept. Com., Bur. Foreign and Dom. Com., Dom. Com. Ser. 10, 19pp. Washington, D. C., 1927. 157.54 D71

Discussion is included of the construction and uses of fiber containers, the selection of the proper container, principal types of fiber containers; marking for shipment; and car-lot loading.

181. U. S. Department of commerce, Bureau of foreign and domestic commerce, Transportation division. Packing for domestic shipment. Nailed wooden crates. Recommendations of the Advisory board of the United States Department of commerce on domestic packing. U. S. Dept. Com., Bur. Foreign and Dom. Com. Dom. Com. Ser. 15, 17pp. Washington, D. C., 1927. 157.54 D71

Discusses terminology for these crates, lumber used in construction, details of construction, specifications for case-lining paper, and marking for shipment.

182. U. S. Department of commerce, Bureau of foreign and domestic commerce, Transportation division. Packing for domestic shipment. Wire-bound boxes. Recommendations of the Advisory board of the United States Department of commerce on domestic packing. U. S. Dept. Com., Bur. Foreign and Dom. Com. Dom. Com. Ser. 12, 22pp. Washington, D. C., 1927. 157.54 D71

Discusses the standard terminology for these containers, describes wire-bound boxes and crates, gives general specifications, and suggestions.

183. U. S. Department of commerce, Bureau of foreign and domestic commerce, Transportation division. Packing for domestic shipment. Wooden boxes. Recommendations of the Advisory board of the United States Department of commerce on domestic packing. U. S. Dept. Com.,Bur. Foreign and Dom. Com. Dom. Com. Ser. 14, 33pp. Washington, D. C., 1927. 157.54 D71

Discusses the wooden box as a shipping container, the selection of the right type of box, details of nailing, strapped wooden boxes, the testing of boxes, interior packing, and marking for shipment.

184. U. S. Department of commerce, Bureau of foreign and domestic commerce, Transportation division. Paper wrapped packages for parcel post and express shipment. Recommendations of the Advisory board on domestic packing of the United States Department of commerce. U. S. Dept. Com., Bur. Foreign and Dom. Com. Dom. Com. Ser. 3, 9pp. Washington, D. C., 1926. 157.54 D71

Good packing practices, methods of wrapping, marking, and packing of different kinds of merchandise are described.

Coordination of Transportation Facilities

185. Boone, A. D. Co-ordinated freight transportation via steamer, truck, train, and warehouse: 1. Seatrain services. Distribution and Warehousing 37(2): 14-15, 35. February 1938. 288.8 T68
"One of the most unique and effective examples of co-ordinated service is afforded by the operation of the Seatrain Lines, Inc., between New York, Havana and New Orleans..."

186. Co-ordination of railway and other transportation. Railway Age 69(24): 1009-1014. Dec. 10, 1920. 288.8 R136
Papers read before the 41st annual meeting of the American Society of Mechanical Engineers, New York, are as follows: A comprehensive transportation system, by Daniel Willard, pp. 1009-1010; Feeders for railroads, by Charles A. Morse, pp. 1010-1012; Motor truck transportation, by Francis W. Davis, pp. 1012-1013; Terminals and terminal yards, by William Barclay Parsons, pp. 1013-1014; The Government and inland waterways, by Frank T. Hines, p. 1014.

187. Cummings, Joseph E. The need for co-ordination of our transportation system. Jour. Polit. Econ. 35(6): 852-861. December 1927. 280.8 J82
Describes the "three-cornered competitive struggle going on between the railways and the various agencies operating over the public highways and on our coastal and inland waterways..."
Proper regulation by one administrative commission, it is believed, could secure transportation service for the nation with the greatest economy of resources and human energy.

188. Dunn, Samuel O. Our national transportation problem. Economically sound co-ordination of all agencies in the public interest can be secured only when national and state governments treat all alike. Railway Age 90(22): 1067-1070. May 30, 1931. 288.8 R136
Address before the Associated Traffic Clubs of America, Chicago, May 6, 1931.

189. Flynn, Leo J. Coordination of motor transportation. A report...to the Interstate commerce commission. 72d. Cong., 1st. Sess. Senate Doc. 43, 136pp. Washington, U. S. Govt. print. off., 1932. 289.4 [F] 1932
The Library of the U. S. Department of Agriculture, Bureau of Agricultural Economics has also Interstate Commerce Commission, no. 23400. Coordination of Motor Transportation.
"The investigation covers the general matter of the coordination of rail or water transportation with motor transportation of passengers and property over the public highways, whether such motor transportation is performed by or in connection with respondents, or whether such motor transportation is performed by them directly, through subsidiary companies, or through control in any manner in whole or in part of motor-vehicle companies or by independent operators of motor vehicles; the arrangements under which the motor transportation is performed; the corporate organization of motor carriers,

and the financial and business relationship existing between rail or water carriers subject to the act and motor-vehicle carriers; the use of respondents' employees in connection with motor-vehicle operations; the rates, fares, and charges for motor-carrier service; the schedules and the manner of filing and publishing them; the extent and effect of motor-vehicle competition upon the traffic and revenues of respondents; the manner in which accounts of revenues and expenses of such motor-vehicle operations are kept; and whether the revenues from such motor-vehicle operations are compensatory for the cost of them."

190. Fulton, Pierce H. Coordination of transportation opens way for rail comeback. Larger freight traffic and control of competing carriers should have marked effect on earning power. Mag. Wall St. 54: 21-23, 50. April 28, 1934. 286.8 M27

Describes the future prospects of some of the railroads and gives resume of work under the Federal Coordinator of Transportation.

191. Kehr, Cyrus. A nation plan; a basis for co-ordinated physical development of the United States of America with a suggestion for a world plan. 210pp. New York, Oxford university press. American branch; etc.; etc., 1926. 98.5 K26

One of the dominating considerations in this plan is the improvement of communication.

Section I under Part 3 deals with external communication by sea, by land and by air; while section II, Internal Communication, includes highways, waterways, railways, co-ordination of the three, and airways.

192. Moulton, Harold G. The need for companies providing all forms of transportation; genuinely effective coordination more important than mere co-operation. Railway Age 99(10): 303-306. Sept. 7, 1935. 288.8 R136

Address before the Transportation Conference, Chamber of Commerce of the United States, Washington, D. C.

Cites the differences in regulation of the various forms of transportation and says "three results flow from this anomalous situation. First, the comparative rates quoted to shippers do not reflect real costs; Second, traffic may no longer be shipped by the cheapest method - all elements of cost included...Third, this system has led to an extensive duplication of transportation facilities..."

193. Peterson, G. Shorey. Transport co-ordination: meaning and purpose. Jour. Polit. Econ. 38(6): 660-681. December 1930. 280.8 J82

The author discusses differentiation in function; developing joint services; coordination to reduce competition; and co-ordination conceived as railway control.

194. Turney, John R. Whither co-ordination? Some requisites for the formulation of a national transportation policy. Railway Age 95(21): 733-735. Nov. 18, 1933. 288.8 R136

Address before the New York Railroad Club, Nov. 17, 1933.

Mr. Turney discusses the interdependency of railroads; the problem of dead weight, the demand for faster service and the question of rates.

195. Wilson, George Lloyd. Coördinated motor-rail-steamship transportation. 228pp. New York, London, D. Appleton and co., 1930. Libr. Cong. HF203.W5

References at end of chapters.

Partial contents: I. The significance of coördinated transportation; II. The terminal problem; III. The motor freight vehicle in terminal service; IV. The St. Louis plan of terminal transportation coördination; V. Terminal motor coördination in the Cincinnati terminal; VI. Terminal motor freight services in New York City; VII. The Chicago terminal services; VIII. Rail-motor line-haul coördinated freight services; IX. The Boston and Maine coördinated highway freight service; X. Container car services; XIII. Store-door freight service; XV. Motor rail-cars; XVI. Coördinated motor-electric railway services; XVII. Steamship motor coördinated services; and XVIII. The objectives of coördination.

196. Wilson, George Lloyd. The future of transportation. Social Sci. 8(2): 164-168. April 1933. 280.8 So16

Discusses the necessity of coordination, how it may be effected, its present status and its future.

Rail and Motor-truck

197. American bankers association, Commission on commerce and marine. Automotive transportation and railroads. A study of relationships now developing between highway and rail transport. 83pp. New York, 1927. 289 Am35

Partial contents: Ch. I. Economic importance of the motor vehicle industry; II. Freight transportation by motor truck; IV. Taxation; V. Regulation.

An Appendix includes: Ch. 5. The railroads with relation to motor transportation; Ch. 6. Result of truck operations by railroads; Ch. 8. Costs of truck operation.

198. American trucking associations, inc., Service bureau. Collection and delivery of freight by railroads (Store-door pick-up and delivery service) An analysis of the legal questions and economic factors... By J. Ninian Beall. 16pp. Washington, D. C., Sept. 3, 1935. 289.4 Am33

199. Banham, W. J. L. Motor truck transportation. Traffic World 25(18): 777-779. May 1, 1920. 288.8 T672

Address before annual meeting of the Chamber of Commerce of the United States, Atlantic City, N. J., Apr. 28, 1920.

Advocates the use of motor trucks at transfer points and for short hauls.

200. Britton, Roy F. A transportation treaty...Address before the Automobile club of Rhode Island and "The Town criers", at Providence, Rhode Island, February 27, 1933. 8pp. Washington, D. C., National highway users conference [1933] Pam. Collect. (Transportation)
Describes the policies agreed upon by the joint committee appointed by the National Highway Users Conference and the Association of Railway Executives. The issues involved and their historical background are briefly presented.

201. Brosseau, Alfred J. How motor trucks and railways through coordination of effort can best serve the transportation needs of the country. Address...before the Atlantic States shippers advisory board, New York City, December 18th, 1931. 10pp. New York, National automobile chamber of commerce [1931] Pam. Collect. (Transportation)

202. Brosseau, Alfred J. Is highway transport an aid to the railroads? 8pp. New York, National automobile chamber of commerce, inc., 1922. 289.4 N21P
Address before the Shippers Conference of Greater New York, Jan. 10, 1922.
Reprint from Commercial Vehicle, Jan. 15, 1922.
Mr. Brosseau points out the different ways in which the truck is of help to the railways.

203. Brosseau, Alfred J. Railroad uses of motor trucks. Line haul and terminal work offer opportunities for efficiently coordinating rail and truck freight transportation. Com. Car Jour. 37(3): 19-20, 60. 291.8 C73

204. Budd, Ralph. The relation of highway transportation to the railway. 28pp. New York, National automobile chamber of commerce, 1926. Ry Econ. Libr. HE1048.B85
Address before the American Society of Engineers, Kansas City, Mo., Apr. 14, 1926.

205. Cass, C. D. Co-ordination of rail and highway transportation. Aera 22(5): 276-279. May 1931. Libr. Cong. TF701.A3
Mr. Cass says the problem is to assign buses and trucks a proper place in the transportation scheme.

206. Church, Donald E. ICC ruling on railroad acquisition of motor lines beneficial to both sides. Annalist 50(1286): 414-415. Sept. 10, 1937. 284.8 N48
The ruling was that railways would be permitted to acquire control of motor carriers only for service between points already directly served by the railway and only on condition that the motor carrier be used as a supplement to the rail service.

207. Cunningham, William J. Correlation of rail and highway transportation. Amer. Econ. Rev. Sup. 24(1): 47-56. March 1934. 280.8 Am32
Discussion by J. M. Barriger, III, pp. 57-62; by Julius H. Parmelee, pp. 62-64; by D. Philip Locklin, pp. 64-66; by G. Lloyd Wilson, pp. 66-70.

The main purpose of this paper is stated to be "to suggest that while the early opportunity of bringing about effective and desirable correlation of the two agencies was missed by the railroads when its effectuation would have been surrounded by the minimum of difficulty, the desirability of such correlation is greater now than it was in earlier years..." while the secondary purpose "is to draw attention to the wide range of diversity in the policies of the several states in the nature and extent of public regulation of commercial highway transportation, the lack of agreement on principles fundamental to the determination of fair taxation or other charges for highway use, and the failure of the federal government to exercise in the field of interstate highway transportation the regulative principles enforced continuously and in growing degree upon railroads since 1887..."

208. Fageol, Frank R. Railroads should own motor transport. Transportation 4(3): 17-19. March 1929. Libr. Cong. HE1.T85
Part of an address delivered before the Motor Transport Section of the American Railway Association, St. Louis, March 1, 1929.

209. Graham, George M. The motor vehicle: competitor or ally? 22pp. New York, National automobile chamber of commerce, inc., 1920. Ry Econ. Libr. HE1048.G45
Address delivered at the convention of the American Electric Railways Association, Atlantic City, N. J., Oct. 14, 1920.
The advantages of the truck in freight haulage are discussed.

210. Graham, George M. The relation of the motor vehicle to the railroads. Railway Age 76(24): 1206. May 17, 1924. 288.8 R136
Address before 12th. annual convention of the Chamber of Commerce of the United States, May 6 to 8, 1924.
"There are three main types of service which the motor truck is now rendering to the railroad: First - The use of motor trucks for short haul, less than carload lots, a type of service which has not proved profitable when discharged by steam railroads. Second - The adoption of motor trucks as a means of establishing terminals outside of congested districts. Third - Store-door collection and delivery in terminal areas."

211. Hungerford, Edward. Motor-truck and box car. Railroads are speeding up service by using gasoline as well as steam. Country Gent. 89(31): 9, 30. Aug. 2, 1924. 6 C833
Describes the operation of motor trucks by some of the railroads.

212. Hutchinson, Rollin W., Jr. The motor truck and the railroad; a forecast of the future of motorized highway commerce. Indus. Mangt. 62(3): 131-138. Sept. 1, 1921. 290.8 En32
Mr. Hutchinson thinks the railroad freight problem is solvable if the railroads are supplemented by national development of highway motor transport.

213. Jardine, William Marion. Interrelation of transportation agencies. Motor truck plays important role in local field and at terminals. Banker-Farmer 12(8): 2-3. July 1925. 284.28 B22

214. Johnson, T. A. A study of co-operative trucking. Advantages of employing trucking companies versus the railroad owning and operating motor trucks. Railway Age 87(8): 505-506. Aug. 24, 1929. 288.8 R136
Discusses the railroads' loss of l.c.l. freight to independent trucking companies. Some of this freight could be better handled by rail. The advantages of door-to-door delivery have an appeal that is difficult for the railroads to overcome.

215. Lee, Elisha. The motor truck and our railroads. Soc. Automotive Engin. Trans. (1923)18(pt.1): 808-819. New York, 1924. Libr. Cong. TL1.S6
Mr. Lee says that motor vehicles and railroads are not competitors and outlines opportunities for coordination. He discusses also the highway building policy of the country, motor rail-cars, and the limits of motor vehicle service.

216. Lyford, W. H. Cooperation versus competition between motor truck and railroad transportation. Highway Ed. Bd. Bull. 1: 169-185. Washington, D. C., 1923. 288.9 H53
Discussion, pp. 181-185.
Mr. Lyford believes that the truck should supplement the railway and not compete with it.

217. Lynch, Edward S. Railroad pick-up and delivery. Jour. Land & Pub. Utility Econ. 14(2): 120-132. May 1938. 282.8 J82
The history of this service is outlined and its present situation discussed; reasons for its development are given; and its economics, results and legal status are described.

218. Many 1935 railroad reports discuss motor transport operations. Executives included more than the usual number of comments on coordinated bus and truck services. Part I-II. Railway Age 100(21): 839-840; (26): 1058-1060. May 23, June 27, 1936. 288.8 R136
Discusses these comments in the reports of the Southern Pacific; Atchison, Topeka & Santa Fe; Union Pacific, and the Chicago, Burlington & Quincy.

219. Meeting the competition of buses and trucks. Tendency toward adoption of highway carriers by the railroads themselves is growing. Railway Age 79(24): 1077-1082. Dec. 12, 1925. 288.8 R136
This is the second of two articles "regarding motor bus and truck transportation, the information in which is derived from various sources, but mainly from the answers made by railway presidents throughout the country to a questionnaire sent to them recently by the Railway Age..."
The first article was issued in Railway Age 79(23): 1023-1028. Dec. 5, 1925 with title "A Survey of the Bus and Truck Situation."

220. [Mid-west transportation conference] Both trucks and railroads needed. Public demands both services in their economic spheres, decides Mid-West Transportation conference. Railway Age 78(27): 1407-1410. June 6, 1925. 288.8 R136

Papers presented at the Mid-West Motor Transport Conference, Chicago, May 27-28, 1925 include: M. L. Bell calls truck a help, pp. 1407-1408; Zone station called solution of terminal problem [for handling freight] by W. H. Lyford, pp. 1408-1409; Motor truck successful as railroad ally, by G. C. Woodruff, pp. 1409-1410; Plans [motor truck] of Pennsylvania described, by R. C. Morse, p. 1410.

221. Mid-west transportation conference. Concluding report of Chicago meeting of May 27-28 - Papers by Messrs. Powell, McKay, and Jardine. Railway Age 78(28): 1467-1470. June 13, 1925. 288.8 R136

Papers include: Trucks not competitors of railways, by J. Gordon McKay, pp. 1467-1469; Secretary Jardine denies existence of competition, pp. 1469-1470.

222. Moore, Stuart B. Co-ordinating motor trucks with railroads. Opportunities for highway transportation to develop new traffic instead of merely competing with existing lines. Railway Age 70(25): 1457-1458. June 24, 1921. 288.8 R136

Discusses types of roads suited to traffic, how highways can best serve the public, and the need for regulation of motor transportation.

223. Motor trucks reduce cost of freight service. Economies will result from substitution of highway equipment for freight cars in handling much l.c.l. tonnage. Railway Age 91(13): 466-468. Sept. 26, 1931. 288.8 R136

Operating Economy Series. Article no. 12.

224. National automobile chamber of commerce. Coordinated transportation series. New York, 1923-1925. 289.49 N213

The Library of the U. S. Department of Agriculture has no. 1 to 13, with the exception of nos. 2 and 8.

Contents:

No. 1. Can't we carry freight to your door? by W. J. L. Banham. 11pp. (Reprinted from Nation's Business, November 1923)

No. 2. Trucks replace freight trains: Pennsylvania railroad contracts its short-haul business to private carriers who use autos. 4pp. 1924.

No. 3. Motor trucks become asset to railroads: Pennsylvania and New York Central roads are replacing local peddler freight trains with motor vehicles. New uses of trucks regarded as pioneer effort leading ultimately to widespread system of store door delivery. 15pp. [n.d.]

No. 4. Railroad use of motor trucks is endorsed by the press. Editors suggest sensible co-ordination of highway and rail transportation will prove vast benefit to general public. 8pp. 1924.

No. 5. Motor truck movement is largely non-competitive in New England. Combined freight service by railroads and trucks and ships and trucks is developing throughout New England territory, by J. Gordon McKay. 8pp. (Excerpts from article in Public Roads, March 1924)

No. 6. The freight car yields to the truck, by Robert C. Wright. 4pp. (Reprinted from Nation's Business, May 1924)

No. 7. The relation of the motor truck to the railway. by Sir Henry Worth Thornton. [4]pp. 1924. (Address before World Motor Transport Congress, Detroit, Mich., May 21, 1924)

No. 9. What of the American highway? by Edward Hungerford. 20pp. 1924. (Reprinted from the Saturday Evening Post, 1924)

No. 10. Facts about railroad use of motor trucks: results of survey, with facts largely supplied by railroad officials are made public. 8pp. 1924.

No. 11. 600 motor trucks and the New York Central, by G. C. Woodruff. 15pp. 1925.

Consists of two addresses "The Railroads and the Motor Truck (before Motor Truck Convention, National Automobile Chamber of Commerce, New York, Jan. 5, 1925) and New York Central's Use of Trucks and Unit Containers" (before the National Retail Dry Goods Association, New York, Feb. 11, 1925.)

No. 12. Facts about railroad use of motor vehicles: Results of second annual survey with facts largely supplied by railroad officials are made public. 11pp. 1925.

No. 13. Highway operation an obligation of New Haven railroad... 14pp. 1925.

225. New York Railroad Club sponsors forum on storedoor service. All points of view in current controversy aired at April 17 meeting by speakers representing railroads, shippers, and trucking interests. Railway Age 100(17): 687-690. Apr. 25, 1936. 288.8 R136

Speakers were C. E. Smith, vice-president of the New York, New Haven & Hartford and its highway subsidiary - the New England Transportation Company, representing the railroads; R. A. Cooke, manager of the traffic department of the American Newspaper Publishers Association, presenting the shipper point of view; Arthur G. McKeever, managing director of the Merchant Truckmen's Bureau of New York, on behalf of local truckmen; and John V. Lawrence, general manager of American Trucking Associations, Inc., presenting views of both local and long-distance truckers.

226. New York trust company. The motor truck: further instances of development in its use as rail feeder. N. Y. Trust Co. Index May 1925, pp. 17-18. 280.8 N48

Describes the coordination of rail and motor freight traffic by the Lehigh Valley Railroad; the Erie Railroad; and the U. S. Distributing Corporation.

227. New York trust company. Rail and motor transportation. Motor trucks as auxiliaries to the railways; co-ordination of the two services. N. Y. Trust Co. Index March 1925, pp. 10-11. 280.8 N48
This article discusses the dual nature of the problem and tells what the Pennsylvania Railroad has done along this line.

228. New York trust company. Railroad and motor truck. N. Y. Trust Co. Index February 1928, pp. 20-22. 280.8 N48
Discusses the proposed regulation of motor trucks. 52 railroads have motor lines as auxiliaries. Comparative costs of moving freight by rail and by truck are given.

229. O'Leary, Bert. Coordinate truck and rail: Quicker delivery service to much wider area is determining factor in trade competition. Distribution Econ. 1(3): 44-45. December 1928. Libr. Cong. HF5761.A1M3

230. Rail-truck service to be extended. Several railways come to agreement with the Keeshin Transcontinental Freight Lines. Railway Age 100(21): 841. May 23, 1936. 288.8 R136
"Widespread use of flat cars as ferries for highway trailers is indicated in the developments of the past few weeks. The Baltimore & Ohio, The Central of New Jersey, the Reading, the Alton, and the Chicago Great Western have announced tentative arrangements with the Keeshin Transcontinental Freight Lines for this type of service; while the Chicago, Rock Island & Pacific has had a similar service in effect with this trucking company for two years..."

231. Russell, D. W. Subsidiary trucking companies. Railway Age 89(21): 1128-1131. Nov. 22, 1930. 288.8 R136
Describes the different methods used by different roads.

232. Scarr, F. J. Coordination of rail & highway transportation. 12pp. New York, National automobile chamber of commerce, National motor truck committee, 1932. Ry Econ. Libr. HE199.S22
Address before the Transportation Club of Toronto, Canada, January 20, 1932.

233. Shannon, Homer H. A close up of the transportation revolution. Traffic World 47(16): 969-971. Apr. 18, 1931. 288.8 T672
Cites the extensive traffic of Montgomery Ward and Company to illustrate transportation adjustment between rail and highway carriers.

234. Shannon, Homer H. Welding rails and highways (Part I-II) Traffic World 48(25): 1347-1349; (26): 1395-1397. Dec. 19, 26, 1931. 288.8 T672

235. Snow, Franklin. Converting the truck to a railway ally. Com. and Finance 20(23): 865-866. June 10, 1931. 286.8 C737
The railroads' plans to use the truck as a feeder and ally are outlined.

236. Some questions and answers on storedoor service. Issues raised by eastern lines' adoption of pick-up and delivery discussed on basis of experience. Railway Age 95(26): 884-886. Dec. 23, 1933. 288.8 R136
The questions asked and answered are: "Is service desired and necessary?...What mileage limit on free service?...What results from providing service?..."

237. Steinberger, M. F. Truck operation by railways. Railway Age 89(21): 1133. Nov. 22, 1930. 288.8 R136
The ways in which railroads may engage in operations over the highways are listed.

238. Store-door delivery. Harvard Business Rev. 7(3): 342-350. April 1929. 280.8 H262
"Store-door delivery involves the direct collection and delivery of freight moving in both directions between the rail-head and the shipper or receiver. This is a service that has never been generally undertaken by the railroads in the United States...The factors which are forcing the railroads into a serious consideration of a plan of store-door delivery include the continued and increasing habit of hand-to-mouth buying, terminal congestion, congestion on city streets, the severe competition of motor trucks, and...the taking over by the railroads of the business of the American Railway Express Company."
British and Canadian practices; experiences and present practices in the United States; the railroads' point of view; the shipper's and consignee's points of view; conditions of service; and objections to store-door delivery are discussed.

239. Store-door services in the East. Developments in northern New England and Eastern Trunk Line territories have been rapid since initial installation on May 2. Railway Age 93(4): 123-125. July 23, 1932. 288.8 R136

240. Talbot, Russell W. The shipping situation between New York City and Philadelphia. A survey of the factors causing the growth of motor truck transportation, for the purpose of presenting specifications to be met in coordinating rail and motor truck transportation for intercity service. 102pp. New Haven, Privately printed for the Committee on transportation, 1931. 289.4 T14
"During the last ten years the railroads of this country have been losing certain classes of their freight traffic to motor truck transportation. This loss has been especially severe in the movement of merchandise freight between industrial centers. This has been all the more keenly felt because of the present business depression, and those responsible for the maintenance of freight revenues on the rail carriers are more interested than ever in means for regaining the lost traffic and preventing still further losses. Thus it seemed appropriate at this time to survey a typical shipping situation with a view to analyzing the causes for the loss of railroad traffic and determining possible remedies..." - Preface.

Appendix II. Industry case histories, pp. 57-101; Appendix III. Rate data (1. Railroad class rates - New York City to Philadelphia; 2. Pennsylvania Railroad container rate schedule; 3. Express rates - New York City to Philadelphia.)

241. The theory and practice of store door delivery. Seven speakers discuss possibilities and problems of the subject before New York Railroad Club. Railway Age 72(13): 826-828. Apr. 1, 1922. 288.8 R136
The Address of T. C. Powell, vice-president of the Erie, which described in detail that company's plan of store door delivery in New York, is given in part.

242. Turney, John R. Store-door service - Can the railroads afford it? Railway Age 94(12): 452-454. Mar. 25, 1933. 288.8 R136
From an address delivered before the Traffic Study Club, Akron, Ohio, Jan. 9, 1933.
The reply is that the railroad cannot afford not to extend this service.

243. Weiss, Charles. "The co-ordination of railroad motor transportation." In Cong. Amer. Indus. Discussions of leading authorities 1776-1926, pp. 102-104. Philadelphia, 1926. Libr. Cong. HC101.C72 1926

244. Wilson, George Lloyd. Legal status of store-door freight service. Traffic World 52(17): 697-699. Oct. 21, 1933. 288.8 T672

245. Young, L. B. Modern conditions demand co-ordinated truck service. Railway Age 86(25): 1525. June 22, 1929. 288.8 R136
"For the distribution of less-car-load merchandise, purely railroad service has been unable to keep pace with the changing times, for two prime reasons: The railroads cannot go where all of the people are; and they cannot give the complete service that the people have been educated to expect.
"But both situations can be met by co-ordinating motor trucks with rail service."

246. Young, L. B. Why use motor trucks. As a part of railway equipment, they can reduce expenses, improve service and meet competition. Railway Age 89(26): 1404-1406. Dec. 27, 1930. 288.8 R136
This article is taken from a lecture by Mr. Young before a class in Traffic Management.
Three principal purposes for which trucks might be used by railroads are listed as "1. To reduce operating expenses; 2. To improve service; 3. To meet truck competition."

Rail and Water

247. Baldwin, Lewis Warrington. Coordination of rail and water facilities. World Ports 14(4): 61-75. February 1926. Libr. Cong. HE553.A55
Includes discussion.
"The following points must be given consideration in the study of future development of port and railroad terminal facilities: (1). Economical location of receiving and interchange yards. (2). Proper location for classification yards for the various terminal operations. (3). Location and size of yards and facilities required for purely local business. (4). General plan of future development with proper relation to other transportation facilities and the future development of the port and the city."

248. Hurley, Edward N. Comprehensive plan outlined for railways owning ships. Railway Age 83(20): 950-952. Nov. 12, 1927. 288.8 R136
Mr. Hurley, formerly Chairman of the Shipping Board, believes railways should engage in ocean transportation.

249. Wright, James F. Coordination of land and water traffic by the Transportation act of 1920. World Ports 15(6): 618-629. April 1927. Libr. Cong. HE553.A55
Discussion, pp. 624-629.
Address before the 15th annual convention of the American Association of Port Authorities, Norfolk, Va., 1926.

Freight Rates*

250. Alldredge, J. Haden. Rate-making for common carriers. 201pp. Atlanta, The Harrison co., 1929. Libr. Cong. HE1843.A72
Bibliography, p. 182.
Glossary of traffic terms, pp. 183-189.
Partial contents: Ch. I. Rates defined and described and their functions explained; II. Influence of government regulation on rate-making; III. General principles; IV. Railroad freight rates; V. Railroad freight classifications and exceptions thereto; VII. Express rates and classification; X. Motor-vehicle rates.

251. Brosseau, Alfred J. The "forgotten man" in transportation. 16pp. New York, National automobile chamber of commerce, 1933. 289.4 N21P
Address before the mid-year meeting, American Petroleum Institute, Tulsa, May 18, 1933.
Mr. Brosseau says that the public pays the freight bills.

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*See also Freight rates under Agricultural Commodities - Fruits and vegetables, Fruits, Grain, Livestock; Railroads; Ocean transportation; also Trucking rates under Highway transportation

252. Hastings, John Ambrose. Postalizing transportation. First ed. 40pp. New York, The author, 1934. Libr. Cong. HE206.H25
"All carriers of passengers, freight, communication, and intelligence should be required to convey to and from all points, stations, posts and ports, within the confines of this land, to any other point, station, post or port, like products, wares, merchandise, freight and messages of like size, bulk, weight, length, measure or context, for a uniform rate, or charge, regardless of the distance traversed, whether by railway, waterway, airway, telephone or telegraph."

253. Jones, William Russell. Jones' tariff manual. Rules to govern the construction and filing of freight-rate publications including pipe-line schedules and classifications; administrative rulings; together with a comprehensive treatise on the changes of the tariff rules of the Interstate commerce commission as promulgated by the commission in Tariff circular no. 20. Rules revised by order of Commission. Approved June 11, 1928; effective October 1, 1928. 55pp. New York, Traffic publishing co., 1928 (Tariff Circular no. 20) Libr. Cong. HE2123.J6

254. Piquet, John A. Can transportation costs be cut? Two relatively new policies advocated to cut the cost of transporting materials and products. Indus. Mangt. 72(1): 46-51. July 1926. 290.8 En32
The two policies advocated are the relocation of industry to sites nearer its markets and its sources of raw materials; and the coordination and consolidation of transportation facilities.

255. Townsend, C. McD. The relative cost of water and rail transportation. World Ports 13(8): 71-91. June 1925. Libr. Cong. HE553.A55
Paper presented at the 13th. annual convention, American Association of Port Authorities, Los Angeles, Oct. 13-15, 1924.
Comment on Colonel Townsend's paper, by H. Taylor, pp. 92-93.
"The essential elements affecting the cost of transportation are: first, the cost of the route; second, the cost of the vehicle transporting the commodity; third, the cost of moving the freight by the vehicle; fourth, the cost of loading and unloading; fifth, taxes; sixth, overhead charges, and seventh, loss and damage to freight en route."

256. U. S. Congress. Senate, Committee on interstate commerce. Transportation rates of common carriers. Hearings...sixty-eighth congress, first session on S. 91, S. 1227, S. 1919 and S. 2951. Bills for the repeal or amendment of Sec. 15a of the Interstate commerce act as amended. 818pp. Washington, Govt. print. off., 1924. 289.22 Un32T
Section 15a of the Interstate Commerce Act provides a rule for rate making for the guidance of the Interstate Commerce Commission.

257. U. S. Tariff commission. The relation of transportation costs to costs of production for the purposes of Section 315 of the Tariff Act of 1922. Letter of the Tariff commission and opinion of the Attorney general. 94pp. Washington, Govt. print. off., 1926. 173 T17Rtc

The letter from the Tariff Commission transmits reasons for and against the inclusion of transportation costs in costs of production and gives a legislative history of Section 315.

Some economic reasons for the inclusion of transportation costs are summed up as follows on pp. 25-27: a. Intimate relation of costs of production and transportation charges; b. Economic importance of transportation in production and production costs; c. Regulation of foreign commerce involves consideration of transportation.

The opinion of the Attorney General was that transportation costs should be included in costs of production.

258. White, John C. The published rate in interstate commerce. Southwest. Polit. and Social Sci. Quart. 5(4): 327-352. March 1925. 280.8 So82

This is a discussion of discrimination in rates. The writer indicates those passages of the Act to Regulate Commerce and subsequent legislation directly affecting the published rate.

State and Federal Regulation*

259. American academy of political and social science. Ownership and regulation of public utilities. Attacking the problem of satisfactory management of public utilities in the public interest. Amer. Acad. Polit. and Social Sci. Ann. v. 201, 295pp. Philadelphia, January 1939. 280.9 Am34

Partial contents: Problems of the railroads, by John J. Pelley, pp. 124-128; The case for private enterprise in railroads in the United States, by Lewis C. Sorrell, pp. 129-136; Government ownership and operation of railroads, by R. H. Montgomery, pp. 137-145; Transportation - the hybrid, by Raynard F. Bohman, pp. 146-151; Railroad regulation by the Interstate Commerce Commission, by Walter M. W. Splawn, pp. 152-164; Government regulation of railroads in the United States, by Emory R. Johnson, pp. 165-174; United States Maritime Commission's regulatory jurisdiction, by J. H. Eisenhart, Jr., pp. 227-232; Extent and possibilities of highway regulation, by Dawes E. Brisbine and George M. Adams, pp. 233-242.

260. Association of American railroads, Operations and maintenance dept., Committee on relations of railway operation to legislation. Bills introduced and laws enacted relating to railway and motor vehicle operation; state legislatures, sessions of 1934. 86pp. Washington, D. C., [1935] 289 As72

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*See also State and Federal regulation under Highway transportation, Railway transportation; Ocean transportation; also Government promotion and financing under Highway transportation, Railway transportation and Ocean transportation

261. Brent, Theodore. A critical analysis of the Eastman reports on governmental regulation of transportation. 56pp. New Orleans, Mississippi valley association, et al., 1934. Ry Econ. Libr. HE2708.C8B75

262. Cole, Whitefoord R. Address on governmental relations to transportation. Railway Age 76(34): 1630-1633. June 17, 1924. 288.8 R136
Address before Division V (Mechanical) of the American Railway Association, Atlantic City, June 17, 1924.
Mr. Cole believes that governmental regulation "should be substantially confined - (1) to insuring transportation to all alike on equal terms, without discrimination, and at rates which are reasonable for the service performed, and, at the same time, sufficient to insure adequate support for the industry; (2) to the maintenance of an adequate and efficient transportation machine continuously operated, in order that the expanding needs for transportation of the commerce of the country may be at all times fully met; (3) to insure to the fullest extent possible the safety of railroad operation..."

263. Commonwealth club of California. Regulating railroads, trucks, busses, boats and airplanes. Commonwealth Club Calif. Trans. 28(10): 359-383. April 1934. 280.9 C732
A symposium containing Report of Section on public utilities, by J. S. Moulton, pp. 361-376; Favoring repeal of the "Short and long haul clause," by George C. Conn, pp. 377-379; Opposing repeal of the "Short and long haul clause," by Clair Cantelow, pp. 380-383.

264. Council of State governments. Trade barrier research bulletin series... Prepared for the National conference on interstate trade barriers to be held in Chicago, April 5-6-7. Chicago, Ill., 1939. Processed. 286 C832
Partial contents: Ports-of-entry as trade barriers, by F. E. Melder. 5pp.
Trade barriers and peddlers, by F. E. Melder. 6pp. (Includes discussion of the gypsy-trucker)
Motor vehicle laws as trade barriers, by F. E. Melder. 6pp.

265. Crumbaker, Calvin. Government as a factor in further transport development. Pacific Coast Econ. Assoc. Papers and Proc. (1937)16: 46-50. Ann Arbor, Mich., 1938. 280.9 P11
This is a brief review of governmental - both national and State - regulation, control and influence upon transportation facilities and policies.
Discussion, by Norman T. Ness, pp. 50-51.

266. Frankfurter, Felix, ed. A selection of cases under the Interstate commerce act. Ed. 2, 789pp. Cambridge, Mass., Harvard University press, 1922. Libr. Cong. HF2710.A25F7
Supplement. 193pp. 1925.

267. Green, Frederick. Cases on the law of carriers, including the Interstate commerce, Bills of lading and Warehouse receipts acts. Ed. 2, 851pp. St. Paul, West publishing co., 1927. (American casebook series. W. R. Vance, General editor) Libr. Cong. Law.

268. Harriman, W. Averell. The transportation puzzle. Today 3(18): 6-7, 21. Feb. 23, 1935. 280.8 T562

Mr. Harriman points out that railroads no longer have a monopoly in transportation, and that this fact has brought new problems of regulation.

He discusses the demand for regulation, the suggestions offered for its solution and opposes the setting up of a "Department of Transportation."

269. Hartman, Harleigh H. Procedure and proof before the Interstate commerce commission in rate and allied cases. 181pp. Washington, D. C., I. T. Hanson, 1935. Libr. Cong. HE2708.I92

270. Hawkins pub. co., inc. Current principles held under the Interstate commerce acts. 1v., processed. New York, N. Y., Hawkins publishing co., inc. [1936] 289 H312

Loose-leaf. Kept up-to-date by supplementary sheets.

"Divided into four sections, (1) the index, p. H3, (2) the table of contents, page H151, (3) the text, page H201 up, and (4) supporting authorities, page H2001 up." - p. H1.

271. Johnson, Emory Richard. Government regulation of transportation. 680pp. New York, London, D. Appleton-Century co., inc., 1938. (Appleton transportation series, ed. by E. R. Johnson) 289 J63G

Bibliography at end of most of the chapters.

Partial contents: Part I. The Government's relation to transportation: controlling principles: Ch. I. Introduction: Importance and scope of government regulation of transportation; II. Government regulation versus Government ownership and operation of railroads and other transportation facilities in the United States; III. The objectives of Government regulation of transportation; IV. Principles that should control in Government regulation of transportation.

Part II. Authorities and agencies of Government regulation of transportation: Ch. V. State and Federal authority: The dual system of regulation of railroads; VI. State and Federal authority: The dual system of regulation of highway, waterway, and air carriers; VII. Court review of legislative and administrative regulation of carriers; VIII. Agencies by which transportation is regulated.

Part III. Government regulation of railroads in the United States: Major problems and policies: Ch. IX. Government regulation of railroad financiering: New construction, security issues, and railroad holding companies; X. Government regulation of railroad service; XI. Government regulation of railroad labor; XII. Government regulation of railroad charges: I. Federal legislation; XIII. Government regulation of railroad charges: II. Freight classification and rates

and their regulation; XIV. Government regulation of railroad passenger fares; XV. Government regulation of railroad competition, consolidation, and holding companies.

Part IV. Government aid and regulation of transportation by water: XVI. Government waterways policy: I. Federal, State, and municipal aid to navigation; XVII. Government waterways policy: II. Aid to shipbuilding and the merchant marine; XVIII. Government waterways policy: III. Government aid to inland waterways; XIX. Government regulation of carriers by water.

Part V. Government aid and regulation of highway transportation and carriers: XX. Government aid and taxation of highway transportation and carriers; XXI. Regulation by the States of highway transportation and carriers; XXII. Federal regulation of interstate highway transportation and carriers.

Part VII. The goal and its attainment: XXVI. A national transportation policy; XXVII. Unification of the Federal regulation of transportation.

272. Lane, Harold F. The outlook for transportation legislation. Co-ordinated regulation of competing carriers appears probable. Railway Age 98(4): 120-122. Jan. 26, 1935. 288.8 R136

The prospects for such legislation are discussed and proposed legislation listed.

273. Lisman, Frederick J. Changing problems of railways and I.C.C. Consolidation - Motor buses and trucks - Long and short haul clause - Rates - Valuation. Railway Age 79(26): 1204-1206. Dec. 26, 1925. 288.8 R136

"To sum up, if the matter of control of interstate motor and ocean rates and the issuing of certificates of convenience and necessity to motor buses and motor truck lines, is to be 'wished' on the Interstate Commerce Commission, greatly increased appropriations for it will become necessary and also an organization which can handle many of these problems which are strictly local. The work of the Commission may have to be divided into districts something like the Federal Reserve Bank districts. This may require subsidiary local commissions..."

274. Lust, Herbert C. Consolidated digest of decisions under the Interstate commerce act (1887 to 1924) 2v. Fowler, Ind., H. C. Lust co., 1925. 274 L97C

The table of contents should be consulted for reference to decisions of interest to the users of this bibliography.

275. Lynde, Cornelius. A new transport legislative program. Traffic World 57(9): 386-387. Feb. 29, 1936. 288.8 T672

This is a discussion of the Federal Coordinator's program.

276. Minnesota. Laws, statutes, etc. Laws of the State of Minnesota relating to the Railroad and warehouse commission, including general provisions concerning railroads, interurban and street railways, telephone companies, public stockyards, weights and measures, motor vehicle transportation, and public warehousemen (other than grain and cold storage), including the laws enacted during the Legislative session of 1935. 183pp. St. Paul, [1935] Libr. Cong. HE2710.M6 1935.

277. Nelson, James C. Coordination of transportation by regulation. Jour. Land & Pub. Utility Econ. 14(2): 167-181. May 1938. 282.8 J82

This is a discussion of the Federal Coordinator's recommendation that an effective national transport policy should provide coordinated regulation of all competing agencies of transportation.

"In conclusion, Mr. Eastman's ideal of regulation of all competing agencies of transport by the I.C.C. has not been fully provided for by law, although the passage of the Motor Carrier Act of 1935 brings us fairly close to the situation needed to test the validity of his theory that the most practicable way to achieve coordination is through regulation of these competing agencies. On the whole, his program of regulation is worth a fair trial, although the case which he presented for regulation of all agencies is not as clear-cut as might be desired. The Commission is now faced with the problem of deciding how large a supply of motor- and rail-carrier facilities it may economically allow and what rate policies it should adopt to prevent undesirable effects of such destructive competition as may arise. Underlying these problems of regulatory policy is the fundamental question of whether it is desirable public policy to continue to subsidize motor, air, and especially water carriers. Unless Congress and the state legislatures eliminate such subsidy as may exist or equalize subsidies to all competing carriers, the Commission's problem of determining and executing regulatory policies that will promote the seeking of each competing form of transport for its own economic level will be rendered most difficult, if not impossible."

278. Nelson, James C. Regulation of transport agencies. South.Econ. Jour. 5(1): 7-16. July 1938. 280.8 So84

Discusses the regulatory policies of the Federal Coordinator of Transportation under the Emergency Railroad Transportation Act of 1933.

"...The basic theme in all of the Coordinator's more important regulatory proposals is that economic coordination of our various transport agencies can be achieved only by a controlled competition so designed by governmental authority that each agency will handle only that traffic for which it is especially adapted..."

279. Railway business association. Compendium of views on transportation regulation. 37pp. Chicago, 1933. Ry Econ. Libr. HE2757 1933.R13

Includes views relative to rate regulation, railroad consolidation, highway and waterway transportation regulation, etc.

280. Regulated transportation. Farmers' Elevator Guide 33(9): 6-7. September 5, 1938. 280.28 Am3
Discusses inequality in regulation and asks whether raising rates will raise revenue.

281. Reynolds, George G. The distribution of power to regulate interstate carriers between the nation and the states. 434pp. New York, Columbia university press; London, P. S. King & son, ltd., 1928. (Columbia University. Studies in History, Economics and Public Law no. 295) 289 R33
Index of cases cited, pp. 415-426.
"The purpose of this discussion is to show how the control of carriers engaged in interstate transportation is divided between the state and the federal governments and to trace the process of judicial interpretation and legislative activity by which the present distribution of powers has gradually evolved from the provisions of the United States constitution..."

282. Sharfman, I. L. The Interstate commerce commission: a study in administrative law and procedure. 4v. in 5. New York, The Commonwealth fund, 1931-37. 286 Sh2
A review of this book by D. Philip Locklin entitled "Fifty Years of Government Regulation" appeared in Quart. Jour. Econ. 52(4): 679-696. August 1938. 280.8 Q2
Partial contents: Part One, The Legislative Basis of the Commission's Authority: Ch. I. The evolution of the Act to regulate commerce to 1910; II. Some outstanding defects of the legislative structure; III. Further legislative developments prior to the war period; IV. The war experience and its significance; V. The Transportation Act of 1920; VI. The development of safety legislation; VII. Legislative policy and its administrative enforcement.
Part two: The Scope of the Commission's Jurisdiction; Ch. VIII. Railroad regulation and the control of allied utilities; IX. The assertion of power over intrastate commerce; X. The exercise of administrative discretion.
Part three, The Character of the Commission's Activities:
Volume A. Ch. XI. The extent and diversity of the Commission's tasks; XII. The valuation project; XIII. Control of organization and finance.
Volume B: Ch. XIV. Rate regulation: The rate level; XV. Rate regulation: The rate structure.
Part four: The Commission's Organization and Procedure: Ch. XVI. The mechanism of administration; XVII. The procedural processes; XVIII. The pressure of the administrative burden; Consolidated table of cases, Parts I-IV, pp. 425-504.

283. U. S. Congress. House, Committee on interstate and foreign commerce. Omnibus transportation bill. Hearings...76th. Cong., 1st. sess. on H.R. 2531, a bill to redistribute the functions of the Interstate

commerce commission with a view to more efficient exercise of rate-making authority; to extend the jurisdiction of the Commission in relation to the fixing of minimum rates, and rates for inland water transportation; to create a railroad reorganization court; and for other purposes. January 24-March 30, 1939. 2v. Washington, U. S. Govt. print. off., 1939. 289 Un36

v. 1, Jan. 24-March 3, 1939 also issued as Pt. 1-3.

v. 2 contains hearings also on H.R. 4862, a bill to amend the Interstate Commerce Act, as amended, by extending its application to additional types of carriers and transportation, modifying certain provisions thereof, and creating and establishing a Transportation board to administer certain provisions thereof; to create a reorganization court, and for other purposes.

283a. v. 1 includes text of H.R. 2531, pp. 1-17; Statement of Walter M. W. Splawn, commissioner, Interstate commerce commission, pp. 18-148; Statement of Carl R. Gray appearing on behalf of the Committee appointed Sept. 20, 1933 by the President to submit recommendations upon the general transportation system, pp. 149-203; Statement of George M. Harrison also appearing on behalf of this committee, pp. 205-258; Report of Committee appointed September 20, 1938, by the President of the United States, to submit recommendations upon the General transportation situation, pp. 259-278; A survey of transportation in the United States, pp. 278-308; Proposed amendment - Section 217(E) Motor Carrier Act, 1935, pp. 484-486; Suggestions for a national transportation policy with special reference to a plan for rehabilitation and care for the railroads of the United States, by J. D. Shatford, pp. 529-534; Wanted - an "iron horse" doctor, by Lawrence Whitefield Furnald, pp. 540-542; Addendum, by A. H. Reeder on behalf of the Railroad Owners Association, pp. 542-558; Statement of E. R. Tanner, representing El Paso Chamber of Commerce and El Paso Freight Bureau, pp. 758-778; Testimony of D. L. Kelley...regarding the consideration of S. 126, S. 137, and S. 158, also Senate joint resolution no. 27, pp. 783-795; Statement of Ernest O. Thompson, member, Railroad Commission of Texas, pp. 808-810; Brief on discriminatory freight rates, compiled for Ernest O. Thompson by West Texas Chamber of Commerce, pp. 810-819; Relation of pending rate legislation to industry in the South, by C. E. Widell, pp. 830-841; Testimony of C. R. Maier...on various interterritorial freight-rate bills, pp. 917-919; Statement of H. N. Roberts...replying for all principal Texas railroads to "Discriminatory freight rates in West Texas," pp. 921-935.

283b. v. 2 includes The regulation of water transportation, proposed by Federal Coordinator Eastman, as analyzed by C. E. Childe, pp. 1019-1023; Analysis of Coordinator Eastman's bill providing for regulation of water carriers (S. 1632 - H.R. 5379), pp. 1024-1034; I.C.C. Docket 15879 - Eastern class rate investigation, pp. 1117-1140; Extension of statement by Herman Mueller [on] Discontinuance of Federal barge operations [and] Tolls on improved inland waterways, pp. 1141-1145; Memorandum of brief prepared by T. C. Elliott re Section 501 of H.R. 2531 concerning Federal government land

rights, pp. 1376-1384; An analysis of The Report of the Committee of Six and highway costs, by Park M. Smith, pp. 1422-1443; Statement of Joseph G. Kerr [on] 1. Subsidies to water transportation... and 2. Federal barge lines, pp. 1499-1553; Report, by Joseph B. Eastman of the Interstate Commerce Commission, pp. 1557-1589; Appendix A. History of the "Rate-making rule", pp. 1590-1596; Memorandum for Statement on H.R. 2531 and H.R. 4862, by John E. Benton, pp. 1647-1667; Resumé of arguments against legislation relating to rates of Great Lakes bulk freighters, by Gilbert R. Johnson, p. 1676; Statement of Gilbert R. Johnson, on behalf of Lake Carriers' Association in connection with H.R. 2531, pp. 1677-1688; Statement on the railroads...on Bill H.R. 2531, by Elisha M. Friedman, pp. 1689-1693; Statement...relating to proposed transportation legislation...by Property Owners' Committee, pp. 1805-1819; Statement by Emory R. Johnson concerning Federal regulation of carriers by water, pp. 1822-1824; Text of H.R. 4862, pp. 1826-1898.

284. U. S. Congress. Senate, Committee on interstate commerce. Amending the Interstate Commerce Act. Hearings...76th. Cong., 1st. sess., on S. 1526, a bill to amend the Interstate Commerce Act (part II) May 10 and 11, 1939. 133pp. Washington, U. S. Govt. print. off., 1939. 289.4 Un32A

Has to do with partial exemption from transportation regulation by the Interstate Commerce Commission of zones adjacent to and commercially a part of municipalities.

285. U. S. Congress. Senate, Committee on interstate commerce. Transportation act of 1939. Hearings...76th. Cong., 1st. sess. on S. 1310 and S. 2016, bills to amend the Interstate commerce act, and for other purposes; S. 1869, a bill to protect interstate commerce from the dangers of unsound financial structures and to establish improved procedures and standards for financial rehabilitation of railroads engaged in interstate commerce, and for other purposes; and S. 2009, a bill to amend the Interstate commerce act, as amended, by extending its application to additional types of carriers and transportation and modifying certain provisions thereof, and for other purposes. April 3 to 14, 1939. 940pp. Washington, U. S. Govt. print. off., 1939.

Includes: Address of Andrew J. Olson, president, Minnesota Farm Bureau Federation, before the annual convention of the Mississippi Valley Association, St. Louis, Mo., Nov. 25, 1935, pp. 225-229; Argument on appeal from report of United States District Engineers at St. Paul and supporting report of division engineer at St. Louis on the proposal to develop the 9-foot channel in the upper Mississippi River to the North city limits of Minneapolis, pp. 238-277; Statement of J. R. Van Arnum, Transportation secretary, National league of Wholesale Fresh Fruit and Vegetable Distributors, pp. 433-444; An analysis of the Report of the Committee of Six - Highway costs,

by Park M. Smith, pp. 463-484; Statement of Gilbert R. Johnson on behalf of Lake Carriers' Association, before the Interstate Commerce Committee with respect to S. 2009, pp. 494-506; Who should pay the freight? by M. J. Gormley, pp. 510-515; Resolutions of Mississippi Valley Association, pp. 535-538; Extended remarks of W. C. McClure, Secretary, Camden, Ark., Chamber of Commerce, pp. 613-617; Statement by Emory R. Johnson concerning Federal regulation of carriers by water, pp. 619-621; The proposed bill vitally affects American shipping as a whole, pp. 639-641; Statement by Herman Mueller, of St. Paul, Minn., pp. 673-692; Proposed additions (or deletions) in respect of S. 2009, pp. 704-708; Statistical data presented to the Interstate Commerce Commission, by Benjamin C. Marsh, executive secretary, The People's Lobby, pp. 718-720; Railroad debt reduction, by Irving Bussing, pp. 720-732; Government monopolies are constitutional, by Irving Brant, pp. 733-736; Statement submitted to the Senate Committee on Interstate Commerce with respect to S. 2009 on behalf of the National council of Private Motortruck Owners, pp. 841-845; Transportation conference of 1938-39 [Report and recommendations], pp. 847-852; Amendments to S. 2009 - Proposed by the National Retail Dry Goods Association, pp. 864-866; Protest of the American Cotton Cooperative Association et al. against certain sections of Senate Bill S. 2009, cited as "The Interstate Commerce Act," pp. 866-868; Why freely functioning inland water transportation is essential to the economic well being of interior industrial and agricultural production and distribution, and why cost-increasing and development-checking controls, regulations, regimentation and tolls on inland water carriers would be hostile to the public interest, by Walter Parker, pp. 874-875; Statement by Emory R. Johnson concerning Federal regulation of carriers by water, pp. 887-890.

286. U. S. Federal coordinator of transportation. [Report on transportation legislation, 1st. - 4th.] Washington, U. S. Govt. print. off., 1934-1936. 289 Un32R

Each report transmitted by the Chairman of the Interstate Commerce Commission.

1st.-3d. reports issued as follows:

1st. - Regulation of Railroads. Senate Document 119, 73d. congress, 2d. sess. 148pp. 1934.

2d. Regulation of Transportation Agencies. Senate Document 152, 73d. congress, 2d. sess. 389pp. 1934.

3d. Report of the Federal Coordinator of Transportation, 1934. House Document 89, 74th. congress, 1st. sess. 245pp. 1935.

4th., processed.

Have also mimeographed synopsis of [1st.] report. 15pp.

287. U. S. Interstate commerce commission. Index-digest-analysis of decisions under the Interstate commerce act. 8v. New York, Hawkins publishing co., inc. [1938] 168 R29B

Loose leaf.

This Index-digest-analysis contains a consolidated general index and a Digest of Interstate Commerce Commission reports; Court cases; Pending Cases; A commodity index; Table of cases; Citations (Docket citators, Decision citers); an index of loss and damage claims; etc.

The publication is kept up to date through monthly distribution of new or supplementary cases.

288. U. S. Interstate commerce commission. The Interstate commerce act. Together with text or related sections of certain supplementary acts...Rev. to October 1, 1935. 303pp. Washington, U. S. Govt. print. off., 1935. 168.1 Ac8

The Library of the United States Department of Agriculture has also Acts Supplementary to the Interstate Commerce Act...Rev. to October 1, 1935. 191pp. Washington, U. S. Govt. print. off., 1936. under same call no.

289. U. S. Interstate commerce commission. Interstate commerce acts annotated. Compilation of Federal laws relating to the regulation of carriers subject to the Interstate commerce act, with digests of pertinent decisions of the Federal courts and the Interstate commerce commission and the text of or references to general rules and regulations. Prepared by and under the direction of Clyde B. Aitchison, commissioner for the Interstate commerce commission. 70th Cong., 1st. sess. Senate Doc. 166, 5 v. Washington, D. C., 1930. 168.1 Ac8A.

The table of contents in volume 1 and the Table of cases cited and the General index of laws and annotations should be consulted.

A 1934 supplement consisting of volumes 6 to 8, was issued as 73d. Cong., 2d. Sess. Senate Doc. 139.

v. 8 contains Table of contents for volumes 6 to 8; and also Table of cases cited; and General index of laws and annotations, cumulative of volumes 1 to 8.

290. U. S. Interstate commerce commission. Interstate commerce commission reports. Decisions...reported by the commission. Washington, U. S. Govt. print. off. 168 R29

The Library of the U. S. Department of Agriculture has v. 1, 1908 to date.

Index...volumes 1 to 104 inclusive (also a part of volume 107) including unreported opinions. Reports dated Apr. 5, 1887 to April 1, 1926. 1926 ed. 157pp. [1936]

Supplement [to Index] no. 2...issued August 1, 1926. 7pp.

For a complete index to the decisions see item no. 287, U. S. Interstate commerce commission. Index-digest-analysis of decisions under the Interstate commerce act.

291. U. S. Laws, statutes, etc. Acts supplementary to the Interstate commerce act (with appropriate cross references to the United States code)... Rev. to Oct. 1, 1935. 191pp. Washington, U. S. Govt. print. off., 1936. Libr. Cong. HE2710.A2 1935b

292. Williams, Nathan Boone. The dust bin. 304pp. Washington, W. F. Roberts co., 1938. 280.12 W67
Ch. IV. Transportation troubles, discusses the history of regulation of the railroads and, briefly, of American shipping. The author fears monopoly by government in the transportation field.

AGRICULTURAL COMMODITIES

General

293. American farm bureau federation. The economics of farm to market roads. A hand book prepared by American farm bureau federation. 63pp. Chicago [1930] 288 Am392

294. American railway association, Car service division. Special commodity loading statement. [Washington, D. C.?] Processed. Folio 289.29 Am34S
The Library of the U. S. Department of Agriculture has 1923-1925, 1928 to date.
Agricultural products listed include wheat, corn, oats, other grain, flour and meal, hay, straw and alfalfa, tobacco, cotton, cotton seed and products (excluding oil), citrus fruits, other fresh fruits, potatoes, other fresh vegetables, dried fruits and vegetables.

295. Anthony, C. S. Transportation of agricultural commodities. Calif. Dept. Agr. Monthly Bull. 22(1): 35-38. January 1933. 2 C12M
Paper read before the 65th Convention of California Fruit Growers and Farmers, Ventura, Calif., December 7, 8 and 9, 1932.
This is a discussion of motor truck transportation of agricultural products.

296. Ashburn, Thomas Quinn. Waterways wanted! Bur. Farmer 6(7): 2, 22-23. March 1931. 280.82 B89
The importance of water transportation to agriculture in the Middle West is discussed.

297. Association of American railroads. Rail service and its cost. The farmers' real interest. 7pp. Washington, D. C. [1936?] Pam. Collect. (Railroads)
This is a plea for the repeal of the long-and-short-haul clause of the Interstate Commerce Act, which, it is said, "will help the railroads to bring about such results as will benefit agriculture in particular and business generally."

298. Association of American railroads, Car service division, Regional shippers' advisory boards. National forecast...covering quarterly freight car requirements of 29 principal commodities... Washington, D. C. Quarterly.
The Library of the U. S. Department of agriculture has 4th., Sept. 29, 1928 to date.

Commodities include grain, flour, meal & other mill products, hay, straw and alfalfa, cotton, cotton seed & products except oil, citrus fruits, other fresh fruits, potatoes, other fresh vegetables, live stock, poultry and dairy products, total and for each territory, carloadings, actual & estimated requirements.

A list of Shippers' advisory boards is included.

299. Beeler, Max N. Better a farm on a truck line than on a railroad. Capper's Farmer 34(3): 3, 41. March 1923. 6 M693

Describes the relief from the "costly, slow and inadequate railroad traffic" which farmers are getting by using motor truck lines. Mr. Beeler favors the gasoline tax, already in effect in 13 States.

300. Betz, F. S. The benefits to be derived by producers through the proper development of our waterways. Farmers' Elevator Guide 23(4): 24-28. April 1928. 280.28 Am3

301. Brosseau, Alfred J. Highway transportation and the farmer. 11pp. New York, National automobile chamber of commerce, 1924. By Econ. Libr. HE5623.B79

Address before the Illinois Manufacturers Association, Chicago, Jan. 15, 1924.

Includes discussion of the speeding up movements of farm produce through use of motor trucks.

302. Brosseau, Alfred J. How motor transport helps farming. Power Farming 33(7): 9. July 1924. 58.8 T41

Its value to the farmer in transporting his produce to market is discussed.

303. Business men's commission on agriculture. The condition of agriculture in the United States and measures for its improvement. A report. 273pp. Washington, D. C., National industrial conference board, inc. and Chamber of commerce of the United States of America, 1927. 281 B96

Chapter XI, Transportation and Distribution, turns its attention to the possibility of securing reductions in the cost of transportation and distribution of agricultural commodities. It discusses existing freight rates, commending the spirit of the Hoch-Smith resolution, and urging "expedition in putting into effect any reductions of the rates on agricultural products which may prove feasible and consistent with it..."

Other topics discussed are: Waterway development, which the commission advocates; distribution costs, and possibilities of improvement such as reduction of spoilage, improvements in city terminals, etc.

304. Church, Samuel Harden. The farmers and the railroads. An address delivered at the Annual convention of the New Jersey farmers at Belvidere, New Jersey, Wednesday, August 15, 1923. 11pp. [Pittsburgh] Carnegie institute press [1923] Pam. Collect. (Railroads and agriculture)

Mr. Church does not believe that a reduction in freight rates on agricultural products would materially benefit the farmer. He advocates rate making, wage fixing, and the issuing of securities by the railroads subject to regulation by the Interstate Commerce Commission except in the matter of wage fixing which would be done in agreement with the employees.

305. Clark, Fred Emerson, and Weld, L. D. H. Marketing agricultural products in the United States. 672pp. New York, The Macmillan co., 1932. 280.3 C54M
Ch. XII. Transportation as a factor in marketing, pp. 240-284.

306. Committee on public relations of the Eastern railroads. Where does the farmer's interest lie? Being a letter from the Editor of a farm journal, asking for facts about the present transportation situation, and the facts. 15pp. New York, 1933. Pam. Collect. (Transportation of Farm Products)
The reply includes discussion of shortage of transportation capacity; and the relation of freight rates to commodity values.

307. Corbett, Roger B. Receipts of food by rail and water in Providence, Rhode Island. R. I. Agr. Expt. Sta. Bull. 211, 15pp. Kingston, November 1927.
"Records of food received in Providence by rail and water have been obtained for the years 1921 to 1925, inclusive. The rail receipts in carlots were taken for each of the five years, while the receipts by boat were found only for 1921, 1923, and 1925. The primary purpose in gathering this material has been to make available information on the out-of-state competition with locally-grown produce. The state of origin and time of arrival of the shipments have been recorded. This preliminary report, giving only a summary of the data, has been issued with the hope that it may be of value in the setting-up of the new wholesale market in Providence."
Receipts of each of the food products by rail and by water in carlots or carlot equivalent are given.

308. Crow, William C. The motor truck alters the farm picture. U. S. Dept. Agr., Bur. Agr. Econ. Agr. Situation 22(4): 20-21. Apr. 1, 1938. 1 Ec7Ag
"...As the [motor truck] movement increases, new problems are posed in agricultural production and distribution. Production areas are shifting, marketing agencies from producer to consumer are being reduced in number, distribution facilities in cities need to be reorganized. The accompanying article based upon BAE studies, discusses some of the highlights of these changes." - Editor.

309. Crum, William Leonard. Movement of the product of agriculture. Study shows possible amplification of information on car loadings prepared by Car service division. Railway Age 77(16): 703-706. Oct. 13, 1924. 288.8 R136

Describes by means of text and charts the seasonal movement of grain and grain products, live stock, and cotton.

310. Curtiss, W. M. Value of improved roads to New York farmers. N. Y. (Cornell) Agr. Col. Dept. Agr. Econ. and Farm Mangt. Farm Econ. no. 92, pp. 2231, 2237-2239. Ithaca, December 1935. 280.8 C812
This article presents information obtained from answers to a questionnaire sent farmers in 1935. Farmers estimated the value of their farms as influenced by three different types of roads - dirt roads, gravel roads, and hard roads.

311. Dahl, A. L. Where motor trucks help farmers. Amer. Thresherman 24(3): 9, 50. July 1921. 58.8 Am32
Hauling farm products to market is discussed.

312. Dickerson, I. W. More speed in hauling. What the truck is doing for Corn Belt farmers. Wallaces' Farmer 51(3): 82. Jan. 15, 1926. 6 W15
Advantages of trucks over teams are listed.

313. Dickie, A. J. Farmer and the merchant marine. Calif. Countryman 11(8): 7-8, 23-24. May 1925. 6 Un34
Discusses the part which the merchant marine plays in the transportation of the agricultural products of California.

314. Dillon, Charles. "Silver-tongued" orators and "silver-plated" railroads. Kans. State Bd. Agr. Quart. Rept. 42(165): 46-52. March 1923. 2 K13Re
This is a reply to an article by Clyde M. Reed, entitled "The Relation of the Railroads to Agriculture" which appeared on pp. 37-46 of the same issue. Mr. Dillon took exception to the impression which, he says, was created by Mr. Reed, that "the railroads are piling up hundreds of millions in surplus funds..."

315. Door yard to market. Farmers' Elevator Guide 28(6): 8-9. June 1933. 280.28 Am3
Thinks that both farmers and railroads are losing money through their short-sighted tactics in allowing the truck to handle the transportation business from farm to market.

316. Downs, Laurence Aloysius. Factors in the farm-railway situation. 10pp. [n.p.] Illinois central system, 1927. Ry Econ. Libr. HE1043.D75
Address before the West Tennessee Farmers' Institute, Jackson, Tenn., July 20, 1927.
Discusses "some of the remaining differences of opinion between farmers and railway men." Rates constitute the main object of controversy.

317. Dunn, Samuel O. Railways' future in hands of the farmers. Successful Farming 26(4): 12-13, 28-29, 42. April 1928. 6 Su12
This is a discussion of the relations between farmers and railways presented from the railway point of view.

318. Eastman, E. R. These changing times; a story of farm progress during the first quarter of the twentieth century. 257pp. New York, The Macmillan co., 1927. 281.2 Ea72
Ch. II, Transportation - When All the World is One Neighborhood, describes the changes that have taken place in roads, and vehicles during this period. The author says:
"In nothing has man shown his superiority over the brutes quite as much as in his ability to transport himself and his supplies on the earth's surface, and in no period in the world's history have this ability and this ingenuity in transportation been as evident as in the last twenty-five years."

319. Erdman, Henry Ernest. American produce markets. 449pp. Boston, New York [etc.], D. C. Heath & co. [1928] 280.3 Er2
Suggested readings at end of chapters.
Ch. XVI. Transportation, pp. 291-322.

320. Erdman, Henry Ernest. How far can the farmer carry his product? Calif. Citrogr. 9(12): 436, 454-457, 461. October 1924. 80 Cl25
Describes the various trade channels through which the farmer's produce must flow on its way from farm to market.

321. Fanciulli, Jerome. Motor truck legislation and its effect on agriculture. Va. State Hort. Soc. Proc. (1932)37: 99-107. Staunton. 81 V81

322. Farm marketing today rests on motor truck. Profit follows increased accessibility to city consumer. Wallaces' Farmer 61(4): 126. Feb. 15, 1936. 6 W15
The improvements made in trucks during a ten year period are described.

323. Farm produce rolls faster via motor trucks. Wallaces' Farmer 62(24): 866. Nov. 20, 1937. 6 W15
According to this article, the original saving in transportation costs through the use of motor trucks in marketing farm products, has been supplemented with another advantage. The motor truck has become a farm market stabilizer.

324. Firestone ship by truck bureau, Akron, Ohio. The farmer and the motor truck. Firestone Ship by Truck Bur. Bull. 4, 13pp. Akron, Ohio, May 1920. 288.9 F51
This bulletin is designed to help the farmer in deciding whether he should: Own his own truck; patronize a rural truck route or a custom truck operator; or promote and join a farmers' cooperative trucking association.

325. Fuller, Luther. Agricultural services of railroads. Rural Amer. 7(2): 6. February 1929. 281.28 C83
Describes agricultural exhibit trains which are operated by the Chicago and Eastern Illinois Railway co. in cooperation with various agricultural agencies. Special trains on dairying, poultry, beef cattle, hogs, soils, fruits, vegetables, marketing, forestry, farm machinery and other subjects have been operated.

326. Gittens, Bert S. When we go to market. Successful Farming 27(12): 12, 76-77. December 1929. 6 Su12
The advantages of hauling farm produce to market with trucks as compared with hauling with horses are discussed.

327. Gray, Chester H. Transportation from the farmers' point of view. An address...in opposition to the so-called Eastman Bill (S. 1629) proposing Federal regulation of highway transportation. Delivered over NBC network from Station WMAl, Washington, D. C., April 23, 1935. 8pp. [Washington, D. C., 1935] Pam. Collect. (Transportation)
"The bill to which your attention is being called tonight fails specifically to include the very kind of regulation that the motor vehicle on our highways should have. Lengths, load weights, speeds, heights, the number of trailers and similar details should be definitely incorporated in federal law to protect the public on the highways..."

328. Hauck, Charles W. Farm produce received in trucks on the Columbus wholesale market, 1928-1935. Ohio State Univ. and Ohio Agr. Expt. Sta. Dept. Rural Econ. Mimeogr. Bull. 16, 25, 40, 45, 62, 72, 80, 86. Columbus, Ohio, 1929-1936. 281.9 Oh32
Ohio State Department of Agriculture, Division of Markets co-operating.
Title varies. Bulletin 16 has title: Produce Receipts by Truck on the Columbus Wholesale Market, July 2-Dec. 31, 1928; Bulletins 72, 80 and 86: Fruits and Vegetables Received in Trucks in the Columbus Wholesale Market...

329. Hedden, Walter Page. How great cities are fed. 302pp. Boston, New York, etc., 1929. (Heath agricultural economics series) 389 H353
Suggested reading list, pp. 287-291.
Partial contents: Ch. III. The revolutionary activities of the refrigerator car; IV. The geography of food terminals and food industries; V. Transportation and terminal handling of perishable food; VII. The interdependence of terminal facilities and trade organization; and X. Terminal handling costs.

330. Henry, Joe. The farmers' co-operative motor truck route. Amer. Coop. Jour. 17(7-8): 8-9, 23. July 1922. 280.28 Am3
Describes the Farmers' Co-operative Company of Harford County, Incorporated, of Harford County, Maryland, which was organized to furnish reliable transportation at reasonable rates to its members.

331. Hildebrand, J. R. Trains of today - and tomorrow. Natl. Geogr. Mag. 70(5): 1-55. November 1936. Pam. Collect. (Transportation)
Some of the modern freight services and equipment, especially as they affect farm products are described.

332. Hill, William S. The farmer and the United States Shipping board. 8pp. [Washington] U. S. Govt. print. off., 1927. 173 Sh6Fa
Mr. Hill, a commissioner of the U. S. Shipping Board, describes the effect of ocean shipping on farm prices. Before the World War, most of the surplus of United States farm products was carried in foreign owned ships. Since the advent of the Shipping Board, foreign shipments have greatly increased and new markets have been opened up.

333. Holtzclaw, Henry F. Agricultural marketing. 429pp. New York, Ronald press co., 1931. 280.3 H74
Bibliography, pp. 419-423.
Includes Ch. 5, Parcel post; Ch. 15, Transportation; and Ch. 22, Packing and shipping.

334. Honeycutt, A. B. Agriculture and transportation. Bur. Farmer (Tex. ed.) 4(1): 17. September 1928. 280.82 B89
An address to the directors of the Texas Farm Bureau Federation at the August board meeting.
Some general remarks as to the interrelations of the two industries.

335. Hoover, Herbert. Waterways - the farmer's need. Country Gent. 91(3): 3-4, 98-99. March 1926. 6 C833
This is a plea for the development of inland waterways to secure to the farmer cheaper transportation.

336. Horine, Merrill C. Motor transport on the farm. The sphere of the motor truck in agriculture. Its uses and limitations are discussed. Field Illus. 30(3): 188-191, 238, 240, 242. March 1920. 42.8 Sp6
Much of the article is devoted to the role of the truck in the transportation of produce to market.

337. Howard, James R. The farmer's interest in efficient transportation. Railway Age 75(19): 873-875. Nov. 10, 1923. 288.8 R136
Paper read at the annual dinner of the Railway Business Association, Nov. 8, 1923. 288.8 R136
What the farmer expects from the railroads is set forth here, and some aspects of recent railway efficiency are discussed.

338. Hultgren, Thor. Agricultural production compared with railway traffic in farm products during the depression. 28pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, December 1934. 1.9 Ec752Agp

"Statement prepared at the request of the Interstate Commerce Commission for its hearings in Ex Parte 115, December 1934, Washington, D. C."

Commodities, the tonnage of which has declined relatively to their production, are listed as wheat, corn, oats, barley and rye, rice, hay and alfalfa, leaf tobacco, cotton in bales, cotton linters, oils and regins, cottonseed, cottonseed meal and cake, oranges and grapefruit, apples, grapes, peaches, watermelons, potatoes other than sweet, cabbage, onions, tomatoes, peanuts, sugar beets, cattle and calves, hogs, butterine and margarine, live poultry, eggs, and cheese.

Commodities, the tonnage of which has not materially declined relatively to their production, are listed as wheat flour, flaxseed, dressed poultry, and butter.

The aggregate agricultural production is compared with aggregate railway traffic in farm products for each of the products listed above.

Charts are included.

339. Hultgren, Thor. Railroad transportation and agriculture during the depression. 15pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, 1936. 1.9 Ec752Ra

340. Hunger, E. A. Farmers' marketing radius increased by motor trucks. Better Fruit 18(10): 8, 12-13. April 1924. 80 B46

Some results of a field investigation by the International Harvester Company of America are listed.

Results also listed in Farming 21(10): 396-397, 402. January 1924 (6 F2298); and Power Farming 33: 7. January 1924.

341. Hungerford, Edward. Down the Mississippi. Where Uncle Sam's barges are floating grain and cotton to market. Country Gent. 89(25): 7, 24. June 21, 1924. 6 C833

Describes the operation of barges on the Mississippi and the saving to the public in reduced freight rates.

342. International congress of refrigeration, 4th., London, 1924. Proceedings... 2v. London, British cold storage and ice association, [1925?] 295.9 In82 1924

Partial contents: v. 2: Cooling and transporting of fruit, by J. Gerritsen, pp. 1149-1155; Notes on the inter-relation of the handling of frozen produce and its condition en route to the consumer, by Charles Tabor, pp. 1156-1167; The storage of refrigerated cargo on board vessels, by J. S. Gordon, pp. 1313-1324; Points to be observed in the construction and insulation of holds of vessels engaged in the carriage of refrigerated cargoes, by R. Balfour, pp. 1410-1427; Low temperatures in transit, by M. E. Pennington, pp. 1427-1438; Modern marine practice in refrigeration, by H. J. Ward, pp. 1438-1447; Special methods of construction of ships and refrigerating appliances for vessels employed on long voyages, by

A. R. T. Woods, pp. 1447-1466; State and national investigations on subjects relating to refrigeration, by Lon A. Hawkins, pp. 1573-1584 (Bibliography, pp. 1581-1582).

343. International congress of refrigeration, 5th., Rome, 1928 Actes. 5v. Rome, Sindacato Italiano Artigrafiche, 1930. 295.9 In82
Text chiefly in French, with contributions in English, Italian, German, etc.
Partial contents: v. 5. Research work in the Department of Agriculture on cold storage and transportation of fruits and vegetables, by Lon A. Hawkins, pp. 1-12; The American refrigerator car of 1927, by J. H. Bracken, pp. 1-5; The development of refrigeration transport in America with special reference to improvements in, and increased use of refrigerator cars, by Eugene F. McPike, pp. 33-56; The refrigerated transport of apples overseas, by Ezer Griffiths and Edgar A. Griffiths, pp. 166-203; Insulation of cold spaces on shipboard as applied to the transport of refrigerated cargoes, by W. G. Brettell, pp. 239-247.

344. Iowa farmers oppose ship subsidy. Referendum by farm organizations shows a big majority against measure. Wallaces' Farmer 47(28): 835. July 14, 1922. 6 W15

345. Jardine, William Marion. Address...before annual meeting of Illinois agricultural association, Champaign, Ill., January 21, 1926. 20pp., processed. [Washington, D. C., U. S. Department of agriculture] 1926. 1.9 Ag863 no. 16
Discusses the points which he believes to be of outstanding importance in the formulation of a program for improvement of the agricultural situation. Among them are: Freight rates; Roads; and Waterway development.

346. Jesness, Oscar Bernard. Changes in transportation and agriculture. Jour. Farm Econ. 13(3): 393-400. July 1931. 280.8 J822
Paper read at 21st. annual meeting of the American Farm Economics Association, Cleveland, Ohio, December, 1930.
Discusses the changes that have taken place in the transportation system of the country - refrigeration service, the development of motor truck hauling, etc. - and the effect these changes have had upon agriculture.

347. Jones, Walter Blackburn. Motor truck uses on the road. Power Farming 29(2): 50, 52, 54, 56. February 1920. 58.8 T41
Uses of the motor truck in hauling produce to market and supplies to the farm are listed.

348. Klein, Jack. Trucks solve many problems in transportation. Calif. Cult. 85(14): 419, 435. July 2, 1938. 6 C12
Cites the agricultural products carried by trucks in California. Statistics are included.

349. Kramer, Roland M. Transportation in relation to the export trade in agricultural products. U. S. Dept. Com. Bur. Foreign and Dom. Com. Trade Inform. Bull. 216, 74pp. Washington, D. C., 1924. 157.7 C76Dt
Survey of World Trade in Agricultural Products, no. 4.
The specific commodities studied in this report are wheat, wheat flour, cotton, leaf tobacco, meat products and cottonseed oil. The principal topics treated are: Routing of Export Shipments; Service and Facilities, which includes discussion of railroad equipment, special railroad services and privileges, protection for perishable freight, protection against heat, and protection against cold; Inland Water Routes, including The Great Lakes, the New York State Barge Canal, and the Mississippi River Barge Line; Terminal Facilities and Charges including storage and equipment for grain, and piers and wharves; Freight Forwarders and Brokers; Ocean Shipping, including conference agreements between United States and: South American ports, West Indian ports, European ports, Canadian ports and the Far East; Contracts of Carriage, including bills of lading, and ocean charters; Rates including railroad and water rates, rates on wheat, flour, on wheat grain for export, meats and meat products, cottonseed oil, cotton and export tobacco.

350. Lewis, Dwight N. Western farmers' attitude toward railways. "The other fellow's viewpoint" as seen by a regulating official of long experience. Railway Age 82(5): 359-361. Jan. 29, 1927. 288.8 R136
Extracts from an address before the Western Railway Club, Chicago, Jan. 10, 1927.
Farmers do not expect all their troubles to be solved by a reduction in freight rates but they do ask for fair and reasonable rates.

351. McKay, J. Gordon. The farmer's interest in various types of roads, and its bearing on financing road building. Jour. Farm Econ. 11(4): 550-560. October 1929. 280.8 J822
Discussion by J. L. Tennant, pp. 561-564.
This paper was read at the 19th annual meeting of the American Farm Economic Association, Chicago, Illinois, December 1928.
The author states that "The improvement, in excess of a low-type 'all-weather' road, of approximately 95.0 per cent of the rural highway mileage, which has no real traffic importance, cannot be supported from the viewpoint of either present and expected future traffic use, the influence of the improvement on farm marketing, or an increase in farm value resulting from highway improvements."
"The improvement," says Mr. McKay, "of established roads serving a farm territory has little influence on the value of rural land, compared with the major factors which establish the value of agricultural land..."
Recommendations for administrative control over highway systems and the financing of these systems is suggested.

352. McNamee, Luke. The farmer and the merchant marine. U. S. Naval Inst. Proc. 53(10): 1062-1064. October 1927. Libr. Cong. V1.U8
Stresses the advantages to the farmer in the development of an adequate merchant marine.

353. Maine. Department of agriculture. The packing and shipping of farm products. Maine. Dept. Agr. Bull. v. 20, no. 3, 37pp. Augusta, 1921. 2 M28B
Products included are apples, eggs, and potatoes.
Packing, containers, and loading are discussed.

354. Miller, Ivan C. Transporting frozen foods. Railroads and trucks divide the bulk shipments, but problems arise in handling less-than-carlot and sample loads. Food Indus. 10(7): 385-386, 417. 389.8 F737
The major problem in frozen food transportation is found to be the maintenance of uniform low temperature.
Statistics are included.

355. Minnesota farm bureau federation. Farmers need waterways. Bur. Farmer (Minn. ed.) 10(1): 9. September 1934. 280.82 B89
This article describes the advantages which farmers receive, in lower freight rates, because of the Federal Barge lines.

356. Morgan, William Fellowes, Jr. Motor trucking and the trade. Local transportation situation in butter, eggs and poultry... Amer. Creamery 80(21): 770, 772. Sept. 25, 1935. 286.85 N482
Address before the National Poultry, Butter and Egg Association, New York, Sept. 24.

357. National association of State marketing officials. Proceedings...annual convention. [Chicago] 280.39 N213P
The Library of the U. S. Department of Agriculture has 1st., 1920 to 20th., 1938.
Proceedings of the first annual convention were issued as New York (State) Dept. Farms and Markets, Div. Foods and Markets. Foods and Markets, v. 2, no. 18, February 1920 (280.38 F73)
Partial contents:
1st., 1920: Standard containers for marketing fruits and vegetables, by F. P. Downing, pp. 16-21; Concerning spoilage of vegetables in transit and storage, by Fred C. Meier, pp. 22-25.
4th., 1922: Problems in the movement of perishable freight, by A. M. Schoyer, pp. 17-22; Cooperation between railroads and State bureaus of markets, pp. 22-27.
7th., 1925: Transportation problems, by Robert C. Ross, pp. 36-44.
8th., 1926: Routes and rates to world markets, by W. L. Harding, pp. 11-17.
9th., 1927: Truck transportation and its relation to the marketing of fruits and vegetables, by C. W. Waid, pp. 112-117; Truck trans-

portation and its relation to the marketing of fruits and vegetables, by A. E. Mercker, pp. 113-121.

11th., 1929: Motor-truck transportation of farm products, by C. W. Waid, pp. 54-57.

357a. 16th., 1934: The Fresh Fruit and Vegetable Distributive Code as an aid to more efficient distribution, by Edgar W. J. Hearty, pp. 23-25; The container situation and necessity for further standardization, pp. 25-26; Can live poultry distribution costs be reduced, and how? by Leroy Peterson, pp. 35-39; Recent changes in the distribution of fruits and vegetables and how growers can meet them, by M. P. Rasmussen, pp. 39-48; What are the railroads doing and what can they do to meet the new situation in food distribution? by James W. Harnach, pp. 48-53.

357b. 17th., 1935: Problems in packaging perishable farm produce, by A. J. Lorion, pp. 12-17; Perishable transportation developments from the railroad viewpoint, by J. M. Fitzgerald, pp. 25-28; Some facts regarding use of the motor truck in marketing perishables, by M. P. Rasmussen, pp. 28-36; Transportation problems in terminal produce markets, by Carl W. Kimball, pp. 36-39.

357c. 20th., 1938: Modern terminal market facilities, by Carl W. Kimball, pp. 10-11; Transportation as it affects terminal markets, by Russell Swiler, pp. 12-16; Improvements in commodity packaging of fruits and vegetables, by H. M. Newell, p. 31; Desirable type of pack and packages from the standpoint of the producer, by I. J. Kussee, pp. 32-33; The standardization of packages from a weights and measures standpoint, by L. C. Carey, pp. 40-45.

358. New Jersey farm bureau federation. How railroad consolidation affects the New Jersey farmer. Bur. Farmer (N. J. ed.) 5(7): 19-20. March 1930. 280.82 B89

The article states that "in summing up the matter, one cannot find any advantages that New Jersey farmers would receive under the proposed plan of consolidation but there are many disadvantages and dangers that lurk in the plan..."

These disadvantages are described.

359. New York (City) Department of public markets. Municipal wholesale terminal markets and their relation to the food problem. N. Y. City. Commr. Pub. Markets Ann. Rept. 1923: 11-50. 1924. 280.39 N484

Appendix III, Development of Motor Truck Deliveries in Connection with the Wholesale Terminal Markets, p. 48.

360. New York (State) Legislature, Joint committee on farm-to-market roads. Report of the Joint legislative committee on farm-to-market roads. 4pp. Albany, J. B. Lyon co., print., 1933. 288 N487

Legislative Document (1933) no. 100.

Henry I. Patrie, chairman.

361. Nourse, Edwin Griswold. The farmer's interest in the Great Lakes-St. Lawrence waterway project. Jour. Farm Econ. 11(1): 1-23. January 1929. 280.8 J822

Discussion by W. E. Grimes, pp. 19-21; Rejoinder, by E. G. Nourse, pp. 21-23.

It has been argued that the farmer would be one of the chief beneficiaries of the proposed Great Lakes-St. Lawrence waterway. This paper is designed to set forth and examine into some of the claims made by the proponents of the plan. These claims are that the freight rates on grain to world markets would be substantially reduced and that this would tend largely to restore the competitive position of the farmer.

Mr. Nourse discusses the probable cost of the waterway; gains to the farmer; probable savings per bushel of grain; indirect gains; whether livestock products would benefit; and whether there would be other benefits.

In conclusion, he feels that a careful examination of the proposal should be made by the farmers of the tributary States.

362. O'Brien, Thomas. Value of highway transport to farmers. Power Farming 33(3): 6, 16. March 1924. 58.8 T41

363. Peterson, Elmer T. Kansas wants an ocean. Outlook 141(2): 44-45. Sept. 9, 1925. Libr. Cong. AP2.08

This is a discussion of the savings in transportation costs to Kansas farmers which would result from the completion of the Great Lakes-St. Lawrence waterway.

364. Reed, Clyde M. The relation of the railroads to agriculture. Kans. State Bd. Agr. Quart. Rept. 42(165): 37-46. March 1923. 2 K13Re

Discusses the need for regulation, railroad revenues in the country as a whole and upon business handled within the State of Kansas, principles of national and State rate making, and railroad values and their effect upon rates.

A reply to this article, by Charles Dillon under title "'Silver-tongued' Orators and 'Silver-plated' Railroads" appears on pp. 46-52 of the same issue.

365. Reid, E. B. To cut the cost of the haul. Farmers cooperative truck companies are saving time and money for farmers around Baltimore. Dairy Farmer 22(21): 10-11. Nov. 1, 1924. 44.8 K56

366. Richards, Clarke A. On educating farmers about railroad matters. Farmer is fair-minded and accepts one-sided view because he has heard only one side. Railway Age 74(10): 551-552. Mar. 10, 1923. 288.8 R136

"Service is the common ground on which the farmer and the railroad men can meet," says Mr. Richards.

367. Rickman, W. G. The shipping seasons of the world's produce. First ed. 120pp. London, W. G. Rickman, 1930. 286 R42
United States of America, pp. 23-31. Information is given by port and commodity.

368. Rommel, George M. Fitting the truck to farm business. There's a right time and place to use it. Country Gent. 90(29): 14, 35. July 18, 1925. 6 C833
The motor hauling of farm freight is described.

369. Sawyer, Leslie Edwin. Marketing Illinois forest products. Ill. Agr. Expt. Sta. Circ. 361, 16pp. Urbana, 1930.
Suggestions on shipping, pp. 8-10.

370. Schram, Emil. A farmer looks at transportation...delivered at the annual meeting of the Traffic club of Wilmington, Delaware...February 10, 1938. 13pp., processed. [Washington, U. S. Reconstruction finance corporation] 1938. 173.2 R24Ad
Much of this talk is given over to the problem of cooperation and coordination of railroads, which has heretofore been blocked, and to the thought that coordination must be brought about between the different kinds of transportation agencies. Mr. Schram's conclusion is that the only way this result can be obtained is to give to the Interstate Commerce Commission the same degree of control over each of the newer forms of transportation that it now exercises over railroads.

371. Sherman, Caroline B. Transportation of farm products. Prepared...for the Inter-American conference on agriculture, forestry, and animal industry, Washington, D. C., September 8 to 20, 1930. 5pp., processed. [Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, 1930] 1.9 Ec731T
Miss Sherman discusses railway, water, and motor transportation.
Also in Pan Amer. Union Doc. Material on Inter-Amer. Conf. on Agr., Forestry & Animal Indus., Sept. 8-20, 1930. Pt. 2, pp. 335-339.

372. Specialty farmers use trucks. Economy of operation creates big market. Wallaces' Farmer 61(24): 808. Nov. 21, 1936. 6 W15
Milk, eggs, poultry, fruit and truck crops are all moved by motor truck.

373. Stem, Charles F. Shipping stock and eggs. Amer. Poultry Jour. 53(11): 1043-1044. November 1922. 47.8 Am32
Packing for shipment to ensure good condition on arrival is discussed.

374. Taking mushrooms to market by motor truck; Cleveland hauler gets mushrooms from Butler, Pa., and backhauls produce to Pittsburgh. Food Indus. 10: 698-699. December 1938. 389.8 F737

375. Tennant, J. L. The relationships between roads and agriculture in New York. N. Y. (Cornell) Agr. Expt. Sta. Bull. 479, 84pp. Ithaca, May 1929.

"The purpose of the study here reported upon was to obtain information regarding the economic relations of roads to agriculture in New York. The number and the percentage of farms located on hard-surfaced, gravel and dirt roads in each county were obtained from the United States Census of 1925. Tallies of the travel on 110 roads were obtained during the summer and fall of 1926 and the summer of 1927. Of these roads, 42 were state highways, 11 were county and town roads, and 57 were dirt roads...

"To obtain data on the influence of the type of road on agriculture, a questionnaire was sent to 4500 farm-bureau committeemen in New York State. Replies were received from 462 farmers..."

376. Thorne, Clifford. Organized agriculture and it's problems. Production, transportation, marketing. 18pp. Springfield, Ill., Illinois farmers' institute, 1922. 281 T39

Address, 27th annual meeting, Illinois Farmers' Institute, Monmouth, February 23, 1922.

Among transportation problems, Mr. Thorne discusses the record of regulation; what happened during the war and the mistake made at its close in authorizing railroads to increase their prices; efforts to correct the blunder of 1920; and the present situation.

He lists three important problems in the transportation industry: "(a) What further reductions, if any, shall be ordered by the Interstate Commerce Commission...; (b) The valuation of all of our railroads, which has been in progress for eight years, is now rapidly nearing completion. The final conclusions on this subject will control the level of freight and passenger rates to be paid by this generation and future generations. That industry which bears approximately one-half of the transportation burden of the country should certainly participate in these important proceedings; (c) There are some important amendments to the present railway legislation that should be secured. The railroads are trying to concentrate all regulation in the hands of the central government. In my judgment, too much centralization is just as dangerous as too much decentralization...

377. Tolley, Howard R., and Church, Lillian M. Corn-Belt farmers' experience with motor trucks. A study of 831 reports from farmers who own motor trucks. U. S. Dept. Agr. Bull. 931, 34pp. Washington, D. C., 1921. 1 Ag84B

The average cost of hauling crops by truck in the Corn-Belt, including the value of the driver's time at 50 cents per hour was found to be "24 cents per ton-mile with the one-half and three-fourths ton truck, 24.1 cents with the 1-ton, 23.3 cents with the 1 1/4-ton and 1 1/2-ton, and 21.5 cents with the 2-ton trucks..."

378. Tolley, Howard R., and Church, Lillian M. Experience of Eastern farmers with motor trucks. An analysis of 753 reports from farmer truck-owners. U. S. Dept. Agr. Bull. 910, 37pp. Washington, Govt. print. off., 1920. 1 Ag84B

"This bulletin is based on the experience with motor trucks of 753 farmers in the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, and Maryland."

18 per cent of these farms are less than 5 miles from market, and nearly one-fourth are 20 miles or more from market. In the opinions of these farmers the principal advantage of a motor truck is in saving time, and the principal disadvantage is "poor roads."

"The average cost of hauling crops, including the value of the driver's time at 50 cents an hour, was about 50 cents per ton-mile with the 1/2-ton trucks, 34 cents with the 3/4-ton, 26 cents with the 1-ton, 24 cents with the 1 1/4-ton and 1 1/2-ton, and 18 cents with the 2-ton trucks..."

379. U. S. Congress. House, Committee on agriculture. Transportation and marketing of farm products. Hearings...sixty-sixth congress, third session. Statements of James T. Lloyd and Martin Dodge. February 8, 1921. 13pp. Washington, Govt. print. off., 1921. 280.3 Un33

Mr. Dodge of Ohio, a former director of the Bureau of Public Roads, presented a reprint of an article, written by him for the National Republican, entitled "The Farmers' Railroad - A Solution of the Short-Haul Problem in Transportation." His plan would involve the building of a "farmers' railroad" made up of light track, with light vehicles adapted to the farmer's use.

This plan, according to Mr. Dodge, would speed the delivery of agricultural products over the short-haul distances of from 5 to 50 miles. Delivery could be made in 12 hours, whereas now the minimum time is five days or so.

380. U. S. Department of agriculture. Car shortage serious problem in Northwest. U. S. Dept. Agr. Weather, Crops and Markets 2(19): 393, 405. Washington, D. C., Nov. 4, 1922. 1 Ag84We

Less than 15% of the required number of box cars and less than 40% of the necessary refrigerator cars were available to move crops in the State of Washington.

381. U. S. Department of agriculture, Bureau of agricultural economics. Barriers to internal trade in farm products. A special report...by George R. Taylor, Edgar L. Burtis, Frederick V. Waugh. 104pp. Washington, U. S. Govt. print. off., March 1939. 1 Ec7Ba

The section on Railroad and Motor-Vehicle Regulation, pp. 36-57, includes discussion of railroad regulation; motor-vehicle regulation (port-of-entry legislation, legal status of State legislation, and Federal regulation of motor vehicles, etc.)

The section on Merchant-Truckers includes restraints on merchant-truckers by States and localities, legal aspects, and the arguments for restrictive legislation.

382. U. S. Federal trade commission. Food investigation. Report...on the wholesale marketing of food. June 30, 1919. 268pp. Washington, Govt. print. off., 1920. 173 F32Rw

Includes discussion of transportation and marketing, pp. 42-51; Losses during transportation, pp. 87-114; Losses at terminals and markets, pp. 114-163.

383. U. S. Interstate commerce commission. Movement of products of Northwest Pacific States. Letter from the chairman...transmitting a report concerning the adequacy of transportation facilities in 1922 for the movement of the products of the Northwest Pacific States. 68th. Cong., 1st. Sess., Senate Doc. 35, 28pp. [Washington, D. C.] 1924. 289 Un

The report discusses the failure of the railroads to supply adequate transportation facilities for the movement of apples, other perishable commodities, forest products, grain and hay, and in general in 1922. The causes of this failure are discussed, and the remedies which were adopted by the principal carriers in 1923 are listed.

384. U. S. Post office department. Transportation of food products. Letter... transmitting report of an experiment in the transportation of food products directly from producers to consumers or vendors. 69th. Cong., 1st Sess., House Doc. 126, 16pp. Washington, D. C., 1925. 148 8578

The report deals with the establishment of rural routes for parcel post shipment of food products.

385. Van Itallie, P. H. New 400 lb. container seen revolutionizing sales of frozen foods. Food Field Reporter 6(25): 1, 32. Dec. 12, 1938. 286.83 F73

This container invented by Major Elihu Church is a corrugated steel, constant-temperature container which will permit the efficient shipment of less than carloads of all sorts of perishables.

386. Wallace, Henry C. Address...before the Traffic Club of Philadelphia, January 9, 1922. 8pp., processed. Washington, D. C., U. S. Department of agriculture, Bureau of agricultural economics, January 10, 1922. 1.9 Ag862 [no. 11]

Mr. Wallace discusses the mutual dependence of agriculture and transportation; the development of Western agriculture and transportation; the increased freight rates which retard agricultural recovery; and says that freight rates on farm products must come down and that farmers and railroads must understand one another and work together.

387. Wallace, Henry C. The farmer and strikes. 3pp., processed. [Washington, D. C., U. S. Department of agriculture, Bureau of agricultural economics] October 23, 1922. 1.9 Ag862

An address before the Knife and Fork Club of Kansas City, Missouri, October 23, 1922.

Mr. Wallace names the two things about the transportation system of the country which farmers want fixed. Freight rates on agricultural products should be decreased. Disputes between the railroads and their labor, which hang up freight movement, must be stopped.

388. Western railways' committee on public relations. What farm papers say about the railroads. Editorials written by thinking editors with farmers' best interests in mind. 78pp. Chicago, October, 1923. 289.2 W52

389. Wilcox, Earley Vernon. New routes to market. High transportation costs cause farmers to consider water for long hauls. Country Gent. 86(15): 3-4, 33. Apr. 9, 1921. 6 C833

Mr. Wilcox says that people in the Corn Belt had "one central idea regarding cheap and adequate freight routes...leading from the Corn Belt to the world's markets. Everybody was thinking of the Mississippi and the Great Lakes water routes..."

390. Wilcox, W. F. What the motor truck did for Cooper. Power Farming 29(11): 11. November 1920. 58.8 T41

"Mr. Cooper in taking over his father's ranch saw the necessity for getting his crops to a profitable market at the right time and in that isolated section of the country [Western Colorado] where railroad facilities are extremely limited and unsatisfactory he solved the problem by investing in a reliable motor truck which is the foundation of the success with which he is meeting in the operation of his ranch."

391. Williams, Herbert Geraint. Transportation and the farmer. 7pp. [Schenectady, N. Y., 1928] Pam. Collect. (Transportation of Farm Products)

Address broadcast from Station WGY of the General Electric Company as a part of the "WGY agricultural program."

Points out the necessity for an adequate transportation system to the farmer, discusses mistakes in management on the part of the railroads and says that the solution of the transportation problem "is most likely to be found in closer contact and cooperation between all shippers and the transportation lines, with each faithfully endeavoring to understand the needs of the other and contributing in full measure toward those needs."

392. [Winder, M. S.] Statement by M. S. Winder, executive secretary. Bur. Farmer (Nebr. ed.)9(3): 8. November 1933. 280.82 B89

This statement refutes a press statement attributed to R. J. Baker, secretary-treasurer of the American Steamship Owners Association to the effect that the American Farm Bureau Federation had, at one time, offered to put on a propaganda campaign among farmers to support the granting of mail subsidies to the American Merchant Marine, for a consideration of $100,000.

393. Wood, Harvey E. Water shipping penalizes interior. Nation's Agr. 12(12): 4-5, 9. November 1937. 280.82 B89
"In this article, Harvey E. Wood, General Counsel for the Pure Milk Association, Chicago, who also operates a dairy farm in Will County, Illinois, discusses the effect that the shift of freight traffic to water carriers has had on the population and industries of the Middle West."

Freight Rates

394. American farm bureau federation. Farm bureau fights increase in freight rates. Bur. Farmer (Ia. ed.) 10(4): 15, 19. December 1934. 280.82 B89

395. Anderson, Sydney. The farmer and the railways. Jour. Farm Econ. 4(3): 137-143. July 1922. 280.8 J822
Mr. Anderson suggests remedies for the unreasonably high freight rates on farm products. These are: consolidation of the railroad systems of the country; "a more discriminating application of rates on the basis of the recognition in addition to the factors now considered in rate making - first, of the general economic conditions and price levels existing in the country; second, of the price relations existing between different commodities; and, third, of the effect of rates upon the economic distribution of commodities..."; and the working of a more flexible and simple rate structure.

396. Anderson, Sydney. What part of the freight burden is borne by the farm? To find the answer to that question is a part of the general inquiry "What is a reasonable rate?" is the work of the National transportation institute's research council. Investigations expected to furnish information for equitable rates. Amer. Bankers Assoc. Jour. 16(7): 421-422. January 1924. 284.8 Am3

397. Andrews, Frank. Effects of the increases in railroad freight rates on the transportation of farm products. Report...June 15, 1921. various paging, typewritten. Washington, D. C., U. S. Department of agriculture, Bureau of agricultural economics, 1921. 1.9 St2E
It was found that the average increase in freight rates since 1913 was 80 per cent. The average freight charge per ton in 1913 was $3.74 while in 1920 it was $6.74. This increase is discussed and tables showing this increase are given for wheat, potatoes, cotton, cattle, apples, and oranges.

398. Are farmers carrying over-production burden of transportation? Better Fruit 27(7): 13. January 1933. 80 B46
The article states that farmers are carrying this burden.

399. Association of land grant colleges and universities, Special committee. Report on the agricultural situation...submitted...at the 41st annual convention, Chicago, Illinois, November 15 to 17, 1927. 40pp. [n.p.], 1927. 281.12 As7

Transportation, p. 22, discusses railroad freight rates from which Class I railroads derived a total of about $915,000,000. Describes the need of readjustments in rates for the relief of agriculture. This need was recognized by Congress in the passage of the Hoch-Smith Resolution which directed the Interstate Commerce Commission to investigate the status of agriculture with a view to determining whether or not freight rates on agricultural products are excessive.

Waterways are briefly discussed. The author mentions proposed shipways which may be expected to bring about a reduction in transportation charges on staple farm products shipped from the surplus-producing regions of the mid-continent, and recommends them as proper subjects of study as to their feasibility and economy.

400. Association of railway executives. The relationship of freight costs to the distribution of agricultural commodities. Report to the Agricultural conference. 42pp. Washington, D. C., 1925. 289.2 As7

Conclusions listed on pages 11 to 12, show that railroads had not earned since the passage of the Transportation Act, a fair return; that railroads are operated efficiently; that operating revenue must be sufficient to insure continued adequacy of transportation facilities; that the trend of freight costs has been below the trend of prices of agricultural products; that the railroads have not shared equally with agriculture and industry during periods of prosperity; that transportation charges are but a minor consideration in determining market prices of agricultural products; that agricultural products move freely and enjoy wide distribution under the existing level of rates; that products of agriculture are not bearing a disproportionately large share of the total transportation costs; that reductions in rates since 1920 have guaranteed savings to the shipping public; that agricultural products were paying less in 1925 in comparison with all carload freight than they did in 1913; that the burden of taxes imposed upon railroad property has been increasingly heavy; that existing rates on most agricultural products have been considered and approved by the Interstate Commerce Commission; and that the five billions of new capital invested by the railroads in their operating properties between 1916 and 1924 have produced no additional net return.

401. Benedict, Murray Reed. Freight rates and the South Dakota farmer. S. Dak. Agr. Expt. Sta. Bull. 269, 62pp. Brookings, 1932.

"The discussion here presented undertakes to give a simple, non-technical explanation of the nature of the farmer's freight rate problem. It is designed for use by farmers, high school students, and others who are not attempting to go into the matter exhaustively...

"The effects of given rate changes are different for each product and the specific results of such changes can only be shown by separate studies of the various products. In view of the fact that many complicated relationships are involved, most of which have as yet been little studied, one of the simplest of the cases - that of potatoes - has been taken in the present study..."

402. Benedict, Murray Reed. The significance of transportation rate policies in the marketing problem. Jour. Farm Econ. 13(3): 401-409. July 1931. 280.8 J822

Paper read at the 21st annual meeting of the American Farm Economic Association, Cleveland, Ohio, December 1930.

In conclusion, Mr. Benedict says:

"It will be seen that aside from the special features of large and sudden rate changes the transportation policies and charges have their principal significance for agricultural marketing in their effects upon the market structure and on inter-area relationships. This discussion has done little except to consider the general setting of the problems concerned and to indicate the direction researches in this phase of marketing may well take."

403. [Bradfute, Oscar E.] Bradfute in joint radio debate sums up Farm bureau position in rate increase case. Amer. Farm Bur. Fed. News Letter 5(41): 3. Nov. 5, 1925. 280.83 Am3W

The Farm Bureau stand in opposition to the 74 Western railroads, who are petitioning the Interstate Commerce Commission for a five per cent rate increase is presented.

404. Bureau of railway economics, Washington, D. C. Commodity prices in their relation to transportation costs. Bulletin nos. 1-40, Jan. 1, 1924-December 1930. Washington, D. C. 284.3 B89

Contents:

Apples. no. 14, 34; September 1926, February 1929.
Corn and oats. no. 8, 16, 17, 25, 26; June 1925, November 1926, December 1926, December 1927, January 1928.
Cotton. no. 3, 9, 13, 23; March 1924, September 1925, May 1926, October 1927.
Fertilizer. no. 36, August 1929.
Grains - Wheat, corn and oats. no. 1. Rev. January 1924.
Live stock - Cattle and calves, hogs and sheep. no. 2, 4, 6, 11, 19, 29, 35, 38; February, May, December 1924; January 1926; March 1927; May 1928; July 1929; June 1930.
Lumber. no. 30, June 1928.
Monthly shipments of fresh fruits and vegetables, United States. no. 27, February 1928.
Oranges. no. 10, 22, 33; November 1925, August 1927, November 1928.
Peaches. no. 32, September 1928.

Potatoes (white) no. 5, 12, 18, 28; October 1924, February 1926, February 1927, April 1928.
Production and movement of fruits and vegetables, United States 1925. no. 20, April 1927.
Unloads of fresh fruits and vegetables at sixty-six important consuming markets in the United States, year 1927, 1928, 1929. no. 31, 37, 39; July 1928, October 1929, October 1930.
Watermelons. no. 21, June 1927.
Wheat. no. 7, 15, 24, 40; February 1925, October 1926, November 1927, December 1930.

405. Chorniak, Nathan. Produce cartage rates and trucking costs in New York City. In Port of New York Authority. Terminal Marketing Studies, Sec. 2, various paging, typewritten. New York, 1924. 280.3 P833T Sec. II, 1924.

"It is proposed...in this report,

"1. To study the rate structure to determine how rates vary with the commodity, with mileage, with volume and weight, and with the route and terminal.

"2. To study daily performance of market trucks to determine the number of loads per day, an average truck can be expected to produce under actual conditions, at different terminals, on various routes, and at different seasons of the year.

"3. To analyze unproductive time...to determine the amounts due to...[various factors]"

406. Committee on public relations of the eastern railroads, New York. Freight rates and farm prices. Does the farmer pay the freight both ways? 6pp. New York, 1924. Pam. Collect. (Prices)

407. Connecticut farm bureau federation. It pays to belong to the farm bureau. Transportation service saves members almost $1,000,000. Bur. Farmer (Conn. ed.) 4(2): 20. October 1928. 280.82 B89

Says that at least $700,000 a year in freight charges has been saved.

408. Cordeal, Ernest. The farmer and the freight rate. Railway Age 76(3): 231-232. Jan. 19, 1924. 288.8 R136

Discusses the opinion held by the farmers of the Mississippi and Missouri Valleys that railroad rates discriminate against them. This, it is held, is untrue. What the railroads have done for agriculture in introducing good seed and pure bred stock is cited.

409. Davenport, Eugene. The farmer's burden of the rate increase. Being both consumer and producer, he will pay a double share. Country Gent. 85(47): 15, 36, 38. Nov. 20, 1920. 6 C833

Discusses the addition of $500,000,000 to the cost of transportation in the United States and describes the effect of increased freight rates on the farmer.

410. Dewey, Ralph L. The farmer's interest in freight rates. U. S. Dept. Agr., Bur. Agr. Econ. Agr. Situation 22(11): 10-12. November 1938. 1 Ec7Ag
The effect on the farmer of increased freight rates and of the inflexibility of rates is described.

411. Dillon, Charles. The railroads: their rates and the farmers. 53pp. Chicago, Western railways committee on public relations, 1924. Ry Econ. Libr. HE1043.D58
Excerpts from addresses in meetings of farmers and business men in Oklahoma, April 14 to 26.
The question of whether decreased freight rates would benefit the farmer is the main theme of this pamphlet.

412. Donnelly, F. A. In transit storings; a plea for fair rules when part of carlot stored in transit is re-forwarded. Amer. Creamery 77(21): 732. March 21, 1934. 286.85 N482
In regard to protection of through rates on butter, eggs, cheese and poultry, stored in transit.

413. Doty, James J. Are proposed increased R. R. rates justified? Are the railroads justified in asking 15% freight rate increase when farmers are taking 25% to 50% less for their products. Swine World 18(11): 2-3. August 1931. 46.8 Sw62
Presents arguments to show that the proposed increase is unjustified.

414. Eastman, Joseph B. Transportation charges and agriculture. Natl. Farm Inst. Proc. (1939)3: 82-87. 4 N219

415. Falconer, John I. Freight rates and the price of Ohio farm products. Ohio Agr. Expt. Sta. Bimonthly Bull. 17(157): 159. Wooster, July-August 1932.
"Assuming that freight rates remain the same, high prices for farm products are to the relative advantage of states distant from market. On the other hand, with low prices for farm products the states distant from market suffer the greater loss." Potatoes are used to illustrate this.

416. Farm prices and freight rates. Barron's 8(46): 5. Nov. 12, 1928. 284.8 B27
Changes in the ratio of freight rates to farm prices are shown.

417. Farmers and freight rates. Sidelights on the high cost of transportation. Successful Farming 20(10): 10, 37. October 1921. 6 Su12
What the high cost of transporting agricultural products to market means to the farmer.

418. The Farmers' national grain dealers association. National association in the freight rate case. Farmers' Elevator Guide 21(5): 26. May 1926. 280.28 Am3
This case was the result of the Hoch-Smith Resolution which had

for its purpose the equalization of freight rates in general and of those on farm products in particular. The railroads countered with a petition for increased rates. The Farmers National Grain Dealers Association began work on the case in 1925.

419. The freight rate case. Farmers' Elevator Guide 20(11): 9. November 1925. 280.28 Am3
Arguments against the proposed raise of 5% in freight rates on farm products and how it would affect grain shippers.

420. Freight rate problems. Savings secured, losses prevented by community effort. Dakota Farmer 48(6): 306. Mar. 15, 1928. 6 D14
The maintaining of "traffic bureaus" in the Dakotas are discussed. Their work is to secure the most favorable freight rates for the community and to prevent unjust and unfavorable freight rate increases

421. Freight rates and agriculture. Liquidation of railway rates the crying need of the hour - Farmers must insist that something be done to ease this burden. Editorial. Breeder's Gaz. 79(5): 207-208. Feb. 3, 1921. 49 B74
Comment on this editorial by executives of several railways appeared in Breeder's Gaz. 79(9): 418, March 3, 1921.

422. Freight rates on farm products. Railway Age 78(4): 256-257. Jan. 24, 1925. 288.8 R136
Criticizes the statements regarding freight rates made by the agricultural commission appointed by President Coolidge.

423. Gabriel, Harry S. Freight rate increase in New York. What should we produce under present conditions in this State? Cornell Countryman 18(3): 133-134, 156, 158. December 1920. 6 C81
The forty per cent freight rate increase which took effect August 26, 1920 is expected to have considerable effect on the type of agriculture in the State.
Comparison of eastern and western freight rates on hay, wheat, corn and potatoes is made.

424. Gabriel, Harry S. Index numbers of freight rates and their relation to agricultural prices and production. N. Y. (Cornell) Agr. Expt. Sta. Bull. 446, 37pp. Ithaca, 1925.
Earlier methods of measuring the level of freight rates are included in the discussion.
The advantages of freight-rate index numbers are listed and the selection of the base period; the construction of index numbers; the regional trend of freight rates; and the effects of fluctuating freight rates upon agricultural products are discussed.
Tables show index numbers of freight rates on agricultural products and on wheat.

425. Gengenbach, Edgar. Common sense vs. prohibition in railroad rates 1921...With Introduction by Francis B. James. 33pp. Washington, D. C., J. Byrne & co., 1921. (American national economics no. 3) Libr. Cong. HE1843.G38

A discussion of the high freight rates on agricultural products.

426. Henning, George F. Index number of freight rates on Ohio farm products. Ohio Agr. Expt. Sta. Bimonthly Bull. 11(5): 202-203. Wooster, September-October 1926.

"Several changes in freight rates have taken place in the last ten or twelve years. From 1910 to 1915 few changes were made. On January 4, 1915, freight rates were advanced 5 percent; June 27, 1914, 15 percent; June 25, 1918, 25 percent; and August 26, 1920, 40 percent. Then on January 1, 1922 the Inter-State Commerce Commission authorized a 10 percent reduction in rates on agricultural products and on July 1, 1922, the 10 percent reduction was made effective on all other commodities."

427. Hibbard, Benjamin Horace. The effect of freight rates on agricultural geography. Jour. Farm Econ. 4(3): 129-136. July 1922. 280.8 J822

Paper read at the annual meeting of the American Farm Economic Association, Pittsburgh, Pa., Dec. 29, 1921.

Discusses the dependence of agriculture upon transportation, the question of whether the farmer pays the freight both on the commodities he sells and on the goods he buys; and the disorganization of the economic system because of high freight rates.

428. Hultgren, Thor. Illustrative comparisons between freight rates on and retail prices of farm products. 14pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, December 1934. 1.9 Ec752Il1

"Statement prepared at the request of the Interstate Commerce Commission for its hearings in Ex Parte 115, December 1934, Washington, D. C."

Comparative prices and freight charges are given for beef, pork, eggs, flour, potatoes, onions, prunes, and raisins.

429. Jones, Harrison F. Proposed rate reduction; Central freight association suggests modified charges on certain mixed shipments of butter, eggs, cheese and poultry. Amer. Prod. Rev. 87(8): 190. Dec. 21, 1938. 286.85 N482

Central Freight Association Docket Advice No. 56490.

430. Killingsworth, W. S. Freight rates and crop reports interest growers. Pacific Rural Press 101(20): 699, 702. May 14, 1921. 6 P112

The subject of high freight rates was discussed at an unofficial hearing before a special examiner of the Interstate Commerce Commission, in San Francisco, May 6, 1921.

431. Killingsworth, W. S. Low tariff and high rates menace agriculture. Pacific Rural Press 101(22): 754. May 28, 1921. 6 P112
Speaks of freight rates as the producer's greatest enemy, and says that high rates reduce traffic.

432. Locklin, David Philip. Freight rates and the Hoch-Smith resolution. Jour. Land & Pub. Utility Econ. 3(4): 361-370. November 1927. 282.8 J82
Provisions of the Resolution are set forth and interpreted and its actual results are listed.
In conclusion, the writer says:
"...The resolution has not brought about the reductions in rates on agricultural products which its proponents and supporters have desired. The Commission has interpreted the resolution conservatively and has proceeded cautiously in applying it. The resolution, however, put added difficulties in the way of securing increases in the rates on agricultural products. It has prevented certain advances in rates that would otherwise have been made. Thus the farmer has received some benefit from the resolution..."

433. Logan, W. S. What is concentration? Amer. Creamery and Poultry Prod. Rev. 70(2): 82, 84, 86. May 14, 1930. 286.85 N482
As the term is applied to the rate application covering the transportation of dairy products designated as butter, eggs and dressed poultry.

434. McKibben, B. F. The proposed freight rate increase. Amer. Creamery and Poultry Prod. Rev. 72(19): 770, 772. Sept. 9, 1931. 286.85 N482
Extracts from Brief filed by B. F. McKibben, Executive Committee, Pacific States Butter, Egg, Cheese and Poultry Association.

435. Matlock, Clifford C. Freight rates on wheat, cotton, livestock. U.S. Dept. Agr., Bur. Agr. Econ. Agr. Situation 23(5): 15-18. May 1939. 1 Ec7Ag
Preliminary indexes indicate that rates on these commodities will average higher during the crop year which began July 1, 1938, than during the preceding year.

436. National association of cotton manufacturers. Shall freight rates be based on economics or politics? 9pp. Boston, Mass. [1935] 289.22 [N]
"The southern cotton textile industry, in an endeavor to secure an advantage over the northern cotton manufacturers on freight rates to the principal markets in the United States, and evidently admitting that their case would not stand the test of investigation by the Interstate Commerce Commission, proposes that freight rates be settled on a political basis and has had bills introduced into Congress to this effect. These bills, if passed, would establish an entirely new basis for freight rates throughout the United States. Cost of transportation would no longer be a factor in establishing rates. Farm products as well as manufactured goods would be directly affected..."

The bills mentioned are H.R. 3042 and S.R. 1, 5, and 6, which provide that the level of freight rates prevailing in destination territory shall be the maximum reasonable level which the Interstate Commerce Commission shall require the railroads to maintain from competitive shipping points.

437. National wool growers association. Freight rate increase not allowed. Natl. Wool Grower 16(8): 14. August 1926. 45.8 N21N
This was the 5 per cent increase asked by the Western railroads on agricultural commodities, including livestock.

438. Nelson, James C. Effects of trucking on freight rates. U. S. Dept. Agr., Bur. Agr. Econ. Agr. Situation 23(3): 9-12. March 1939. 1 Ec7Ag
The central feature of many recent propoals for formulating a national transportation policy is coordinated regulation of all agencies with increased power in the Interstate Commerce Commission to set a bottom to rates. The possibilities of such minimum rate regulation as they relate to farm groups are discussed.

439. O'Neal, Edward A. Statement [concerning the matter of reducing freight rates on all basic commodities]...before Interstate commerce commission. ICC docket no. 26,000. 11pp., 12 exhibits, processed. [Washington, D. C., 1933] Pam. Collect. (Freight Rates)
"So far as farm commodities are concerned, we recommend a general reduction of not less than 25 to 33 1/3 per cent in the level of freight rates on all agricultural commodities including livestock and dairy and poultry products. If the freight rate level on farm commodities is 150 per cent of the pre-war level, and we believe it is higher than that, a 33 1/3 per cent reduction would leave the rates at about the pre-war level..."

440. Parmelee, Julius H. Farm prices and railway rates. Jour. Farm Econ. 4(3): 144-149. July 1922. 280.8 J822
Discusses the rapid deflation of farm prices since 1920, which has made them lower than freight rates. In conclusion, he says:
"...Readjustment of freight rates is one factor in the general economic readjustment and must be carried on with due regard to the needs of the carriers, the needs of the agricultural industry, and of all other industries as well. The cost of transportation is one of the costs of production and distribution...the transportation cost must be paid, for otherwise our transportation machine would break down, and without adequate transportation no economic organization can long survive."

441. Parmelee, Julius H. The farmer and the railways. 6pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, 1922. 1.9 Ec7F
Address in the conference room of the Bureau of Markets and Crop Estimates, June 15, 1922.

Mr. Parmelee discusses one phase of the subject - the relationship between freight rates and the prices of agricultural commodities, and other prices.

442. Patrons of husbandry, National grange. Before the Interstate Commerce Commission Ex Parte 103. The proposed increase in freight rates. Statement on behalf of the National grange, by Fred Brenckman, Washington representative. 20pp. Washington, D. C., 1931. 289.22 P27
Statement in opposition to petition of railroads for increased freight rates.

443. Pennsylvania. Department of markets. Proposed freight rates affecting Pennsylvania agriculture. A study of proposed mileage rates in the Eastern Class Rate Investigation (I.C.C. 15879) as they affect farm products and supplies. [20]pp. Harrisburg, April, 1925. Pam. Collect. (Freight Rates)
Present and proposed rates are given from various cities to Boston, New York, Philadelphia, Baltimore, Scranton, and Pittsburgh for potatoes, cabbage, apples, peaches, celery, lettuce, grapes, wool, tobacco, wheat, flour, and hay.

444. Pickett, John E. The rail rate problem and you. Pacific Rural Press 135(1): 7. Jan. 1, 1938. 6 P112
The proposed 15 per cent increase in transcontinental freight rates and its effect on the farmer are discussed.

445. Present rates must come down. Traffic conference of farmers and shippers urges rate adjustment. Ohio Farmer 147(13): 448. Mar. 26, 1921. 6 Oh3
This was the National Traffic Conference, called by the American Farm Bureau Federation, which met at Chicago, March 14.

446. The railroads and freight charges. Executive officials of several lines comment on "The Gazette's" recent editorial concerning increased rates and give their views on the subject in relation to farming interests. Breeder's Gaz. 79(9): 418. Mar. 3, 1921. 49 B74
These comments are by C. H. Markham, president Illinois Central Railroad Co.; D. Willard, president, Baltimore & Ohio Railroad Co.; and A. C. Johnson, vice-president, Chicago & North-western Railway Co.
This editorial appeared in Breeder's Gaz. 79(5): 207. Feb. 3, 1921, under title "Freight Rates and Agriculture."

447. Ralls, Hamilton. About freight rates and their effect on farmers' net profits. "Let's have a fair deal." Ga. Dept. Agr. Ga. Market Bull. 22(14): 3. Aug. 15, 1938. 280.39 G292

448. Reed, Clyde M. Distributing the transportation burden. Agr. Rev. 16(10): 21-23. November 1923. 53.8 Ag8
Address before the seventeenth annual session of the International Farm Congress.

Says that valuation of railroads is excessive and maintenance charges are unreasonable.

A table shows comparative statement of wholesale prices of commodities and transportation charges. Includes wheat and corn.

449. Reed, Clyde M. What will the traffic bear? Bur. Farmer (Kans. ed.) 3(6): 29. February 1928. 280.82 B89

Excerpts from address at ninth annual meeting of Kansas State Farm Bureau, in which he includes discussion of the freight rate problem.

450. Rutherford, D. M. Agriculture's case against higher rates. Pacific Rural Press 135(4): 95, 107. Jan. 22, 1938. 6 P112

Representatives of crops produced in California agreed that they could not absorb the 15 per cent freight rate increase for which the railroads petitioned the Interstate Commerce Commission.

451. Sandberg, O. W. And the farmer pays the freight. Bur. Farmer 7(1): 4-7. September 1931. 280.82 B89

Discusses the plight of the railroads and the fight which the American Farm Bureau Federation has made against increased freight rates.

452. Scott, J. W. Interest in transportation reviving. Bur. Farmer (Kans. ed.) 5(7): 17, 21-23. March 1930. 280.82 B89

Describes the revival of interest in freight rates in Kansas, especially on agricultural commodities.

453. Shepherd, Geoffrey. The burden of increased costs of distribution. Jour. Farm Econ. 14(4): 650-661. October 1932. 280.8 J822

"When costs of distribution increase, as for instance when freight rates are raised, who pays the bill? Does the producer receive less, or does the consumer pay more? And if they divide the burden between them, what determines how much of the load will be borne by the producer, and how much by the consumer?"

Using hogs as an illustration, the author shows what happens when freight rates between Iowa and New York City are raised.

454. Shippers demand lower freight rates. Discussion at Chicago meeting reveals serious condition in commerce. Orange Judd Farmer 69(12): 368. Mar. 19, 1921. 6 Or1

455. Stratton, George Frederic. Side-stepping high freights. They may prove a blessing to the Far West. Country Gent. 87(25): 1-2. July 29, 1922. 6 C833

Asks whether increased rail facilities are the only solution for the expansion of industry or "can the tonnage of freight be reduced by seeking markets nearer home, by shipping the Far West's hay and feed grains on the hoof instead of shipping both animals and feeds to the Middle West, where heretofore range livestock has been finished for market?"

456. Trumbower, Henry R. The incidence of freight charges on agricultural products. Jour. Polit. Econ. 33(3): 340-353. June 1925. 280.8 J82

Discusses the theory that the farmer pays the freight on all the products which he ships and also on all the goods which he buys, and says in conclusion:

"The principle that the agricultural producer bears invariably all of the freight charges on his products cannot be maintained in theory or in actual practice except as mentioned above, where there is an advance in freight rates and not sufficient time elapses for the industry to adjust itself to the new conditions. The price paid for the product will in the long run have to be sufficient to cover the transportation cost as well as the production or growing costs. In making these adjustments, however, which are made necessary on account of changes in transportation costs, rearrangements in the areas of agricultural production may be brought about which, in cases of an increase in transportation charges, may have a very serious effect upon those producers in the least advantageous situation and farthest away from the market."

457. Tuohy, J. D. Traffic and transportation. Amer. Creamery 72(24): 1038-1039, 1041. Oct. 14, 1931. 286.85 N482

Discusses the hearings before the Interstate Commerce Commission in the formal rate complaint, Docket no. 16750, involving poultry, butter and eggs.

458. Tuohy, W. M. Traffic and transportation. Discusses reductions in rates made on carloads of butter, eggs and dressed poultry. Amer. Creamery 80(22): 806-807. Oct. 2, 1935. 286.85 N482

459. U. S. Congress. House, Committee on agriculture. Agricultural relief. Hearing...seventy-first congress, first session. March 27, 28, 29, 30, April 1, 2, 3, 4, 5, 1929. 9 pts. Washington, U. S. Govt. print. off., 1929. 281 Un3Agr

Freight rates and other transportation problems as they affect farm produce are discussed in some of the statements before the Committee by representatives of various organizations - The Farm Bureau Federation; the Millers National Federation; the American Association of Land Grant Colleges and Universities; the Wheat Growers' Cooperative Marketing Association, Minneapolis, Minn.; the Farmers Grain Dealers' Association of Iowa; the American Cotton Growers' Exchange, the Research Institute, Washington, D. C.; the Kansas Cooperative Wheat Marketing Association; the National Potato Institute and the Eastern Shore of Virginia Produce Exchange; the Federated Fruit and Vegetable Growers; the National Cooperative Milk Producers' Federation; the Virginia Farm Bureau Federation; the American Rice Growers' Cooperative Associations of Texas and Louisiana; the Nebraska Wheat Growers' Association; Associated California Fruit Industries, Inc.; the Farmers' Union; the American Cranberry Exchange; the National Grange; etc.

Statements by a number of individuals representing various interests also appear.

460. U. S. Department of agriculture. Ocean freights lower on many farm products. Cotton and wheat rates to United Kingdom reduced half since last November - rates on dairy products reduced. U. S. Dept. Agr., Bur. Markets and Crop Estimates Market Reptr. 4(4): 49, 64. July 23, 1921. 1 M34M

Data for this statement was furnished by the U. S. Shipping Board.

461. U. S. Interstate commerce commission. Railroad rates on agricultural products. Letter from the Chairman...transmitting, in response to Senate Resolution no. 250, a report on propriety of rates similar to the Canadian rates on grain, livestock, and other agricultural products in the Northwest. 70th. Cong., 2d. Sess. Senate Doc. 183, 30pp. [Washington, D. C.] 1928. Pam. Collect. (Railroads & Agriculture)

Tables include Comparison of Canadian export rates with rates based on cost plus a 6 per cent return on property investment... and with rates prescribed by the Interstate Commerce Commission and by State commissions; Comparison of Canadian and United States scales of rates; Comparison of Canadian and United States point-to-point rates.

Pages 20-29 contain statistics of Canadian rates on livestock.

462. U. S. Interstate commerce commission. Rate reductions. Letter from Hon. Ernest I. Lewis, member Interstate commerce commission, to Hon. Everett Sanders, member of the Committee on interstate and foreign commerce of the House of representatives concerning reductions and readjustments of rates made since general readjustment on August 26, 1920 under Commission's opinion in increased rates, 1920, 58 I.C.C. 220 (Ex parte 74) 67th Cong., 1st. Sess. House Doc. 115, 40pp. Washington, Govt. print. off., 1921. 289 U

This letter consists largely of a list showing reductions in rates since Aug. 26, 1920 on many commodities, including tobacco, hogs and sheep, grain and grain products, calves, eggs, poultry, cotton and cotton linters, etc.

463. Wallace, Henry A. High freight rates as a retarding factor in agricultural and industrial recovery; a statement presented at hearings before the Interstate commerce commission on increase in freight rates and charges. 8pp., processed. [Washington, D. C.] U. S. Dept. of agriculture, Dec. 7, 1934. Vertical File. Press Releases. Statement [no. 30]

Extracts in U. S. Dept. Agr., Bur. Agr. Econ. Agr. Situation 22(2): 9-11. February 1938. 1 Ec7Ag

464. Wallace, Henry C. The farmers and the railroads. 12pp., processed. Washington, D. C., U. S. Department of agriculture, Bureau of agricultural economics, April 28, 1922. 1.9 Ag862 [no. 18]

Address...before the New York Academy of Political Science, New York, April 28, 1922.

Mr. Wallace gives a general review of the development of transportation in this country and the way in which freight rates are made both before and since regulation. He describes in brief the probable effects if high freight rates continue for any length of time.

465. Wallace, Henry C. Freight rates. Kans. State Bd. Agr. Bien. Rept. (1921-1922)28: 46-47. Topeka, 1923. 2 K13R
The two things which should always be kept in mind in considering the matter of freight rates on agricultural products are, Mr. Wallace says,..."First, that the cost of transportation is essentially a part of the cost of production...and any increase in transportation costs must come out of the price the farmer receives...
"Second, our business and industrial life has been built up on a system of relatively low railroad rates for agricultural crops... A sudden reversal of this theory of rate-making results in great economic injustice..."

466. Wallace, Henry C. Our debt and duty to the farmer. 232pp. New York & London, The Century co., 1925. 281 W15
Ch. X. Adjustments in Farm Indebtedness, Taxes, Freight Rates, and Other Costs, describes the heavy additional burden which the farmer was compelled to assume in the form of increased freight rates. Mr. Wallace felt that there was real need of a thorough overhauling of our system of distribution.

467. Warren, George Frederick, and Pearson, Frank Ashmore. The agricultural situation. Economic effects of fluctuating prices. 306pp. New York, J. Wiley & Sons, inc., 1924. 284.3 W25
Chapter VII, pp. 52-59 is devoted to freight rates. It contains a brief history of rates; and discusses the adjustment of rates between different commodities; the maladjustment of freight rates and prices; prices of the same products in different states; etc.

468. Warren, George Frederick, and Pearson, Frank Ashmore. Who pays the freight? Farm Jour. 52(3): 9, 59. March 1928. 6 F2212
This article is designed to show that the farmer pays the freight on his products and that only as the supply is reduced can any cost be passed on to the consumer.

469. Washington (State) College of agriculture. Agriculture and freight rates. Wash. Agr. Col. Timely Econ. Inform. no. 8, pp. 1-5. July 1932. 275.29 W27T

470. Waters, Henry Jackson. Should the farmer have lower freight rates. Kans. State Bd. Agr. Quart. Rept. 42(165): 52-54. March 1923. 2 K13Re
The writer advocates letting rates change with values. He says:
"It is conceded that the readjustment of freight rates involves much labor and expense on the part of the railroads and that it would be out of the question to have freight rates follow temporary

fluctuations of the market. It cannot be denied, however, that rates should follow the broad trends of the market and should keep in general and approximate adjustment with long-sustained changes in value.

"It is on this principle that the farmer bases his claim for relief from present high freight charges on products that are now relatively lower in value than they have been in many years, even though affording him this relief involves increasing freight rates on other commodities that are relatively higher than they have been before."

471. Wilcox, Earley Vernon. Frozen freights. A speedy readjustment of rates is necessary to thaw out farm traffic. Country Gent. 86(26): 5, 40. July 2, 1921. 6 C833

Says that one effect of the increase of 25 to 40 per cent in freight rates is that goods are now moving along the cheapest route, that is, on the shortest way to water.

472. Wilcox, Earley Vernon. Over the hill to market. Costly mountain hauls increase Western growers' freight bills. Country Gent. 86(13): 3, 35. Mar. 26, 1921. 6 C833

473. Williams, George R. The importance of Florida rates to the Florida grower. Fla. Agr. Col. Ext. Bull. 24: 17-18. Gainesville, January 1920. 275.29 F66

Discusses the increase of $1,500,000 in Florida rates, and the danger to the grower if these rates are further increased.

Cotton

474. [Anderson, Clayton & co., Houston, Tex.] The modern cotton package. 16pp. [Houston? Gulf print. co.? 1930?] 281.372 An3M

475. Anderson, Clayton & Fleming, New York. Maps of the ports designated by the New York cotton exchange as delivery points for the tender of cotton on contract. New York, 1933. 280.372 An2

Consists of eight maps.

476. Andrews, R. C. How cotton shippers and railroads can cooperate. Com. & Finance 14(37): 1797, 1799. Sept. 16, 1925. 286.8 C737

Lists deductions reached at a meeting of representative cotton and railroad men at Dallas, Tex., June 24, 1925.

477. Arkansas cotton growers co-operative association, et al. Before the Interstate commerce commission. Docket number 18,390, et al. Arkansas Cotton growers co-operative association, et al. vs. Aberdeen & Rockfish Railroad Company, et al. (and consolidated cases) Brief... 134pp. Washington, D. C., B. S. Adams [1928?] 289.22 Ar4

Partial contents: Forms of present cotton rate structure; Descriptions governing cotton rates; Relative importance of class and commodity rates; Distribution of the traffic burden South Western Territory; Interterritorial rates; etc.

478. Beck, Walter. The cotton truck. 24pp., processed. Austin, Tex., Texas motor transportation association [1932] 289.4 B34

479. Collings, Gilbeart H. The production of cotton. 256pp. New York, J. Wiley & sons, inc. [etc.] 1926. (The Wiley agricultural series) 72 C69
Contains a chapter on Marketing and Transportation of Cotton.

480. Eberhart, J. E., comp. Table of simplified cotton rates from points in entire cotton belt to mill points in Southeast, New England and dominion of Canada and from points in Southeast to south Atlantic and east Gulf ports. 64pp., processed. [Atlanta, Ga., Southeastern compress & warehouse co., 1938] 289.22 Eb3

481. Finke, John F. The new era of transportation via Mississippi River and its effect on movement of cotton to New Orleans. Com. and Finance 18(39): 2101. Sept. 25, 1929. 286.8 C737

482. Fort, Gerrit. The railroads and the industry. Natl. Assoc. Cotton Manfrs. Trans. (1924)116: 150-164. 304.8 N21T
This is a discussion of railroads in relation to the shipment of raw cotton.

483. Goff, John H. Transportation of cotton by truck in Alabama. Ala. Polytech. Inst., Bur. Agr. Research and Dept. Agr. Econ. Ala. Econ. Rev. 2(4): 18-24. Auburn, Mar. 1, 1932. 280.8 A11
"...the transportation of cotton by trucks falls into two classes. First, there is a non-competitive service where trucks haul seed cotton to gin; from gin to warehouse; or, where they are used as feeders, to tap sections not touched by the railroads; or in carrying cotton from warehouses to freight cars, from freight cars to warehouses, or mills. Secondly, there exists a straight out competitive service on long and short hauls with either railroads or boat lines. In some cases the trucks and boat lines combine to render a truck-water service, the truck being used on a supplementary short haul to bring cotton to the boats."

484. McCrory, S. H. European observations on American cotton packaging; an address...delivered before the twenty-eighth annual convention of the Texas cotton association, Houston, Texas, March 31, 1939. 5pp., processed. [Washington, D. C.] 1939. 1.9 En3Eu

484a. McKee, John A. Damaged cotton. 83pp. [New Orleans, La., Graham print. co., ltd., 1937] 280.372 M19
Bibliography, pp. 81-83.
Damage in marine transportation.

485. McWhorter, C. C. Highways vs. railways. Cotton Trade Jour. 13(21): 59, 103. May 27, 1933. 72.8 C8214
The transportation of cotton by rail and road is discussed.

486. Moulton, Elma S. Cotton production and distribution in the Gulf Southwest. U. S. Dept. Com., Bur. Foreign and Dom. Com. Dom. Com. Ser. 49, 311pp. Washington, D. C., 1931. 157.54 D71
Transportation of cotton, pp. 238-248, includes railroad transportation (facilities, rates and services); water transportation; highway transportation (highway stens, and movement by motor truck)

487. Oklahoma. Corporation commission. Before the Interstate commerce commission. No. 17000, Rate structure investigation, Part 3, Cotton and cases consolidated therewith, including no. 18932, Corporation commission of Oklahoma vs. Atchison, Topeka and Santa Fe railway company et al. Brief...Argument...Paul A. Walker, special counsel. 132pp. Oklahoma City, 1928. 289.22 C81 Pt. 3
The Library of the U. S. Department of Agriculture has also Exhibit 152, 153, 154, Statistical and Graphic Presentation of Facts Relative to the Economic Situation of Oklahoma Farmers, 152, by C. T. Dowell, 153 by W. W. Fetrow, and 154 by J. T. Sanders; Exhibit 921-922, Facts Relative to the Economic Situation of Oklahoma Farmers, by J. T. Sanders.

488. Philips, Frank C. Transportation of cotton. 2pts., processed, In Miss. State Col. Cotton Marketing Sch. [Addresses]1936. 280.372 M69A

489. Ransdell, J. E. The cotton industry. Sound business principles and economy alike call for three reforms in marketing the American crop. Remarks in the Senate...Feb. 25, 1927. 59pp. [Washington, D. C., 1927] 72 R172
These three reforms are listed as: "1. A standardized bale fixed by law as 500 pounds of lint exclusive of bagging and ties; 2. Sufficient duty on India jute and jute fabrics to permit the use of low grade American cotton for all domestic bagging, sacks and burlaps; 3. Legislation requiring the Interstate Commerce Commission to establish and enforce preferential freight rates for cotton based on the cubical contents of the bale."
Reprinted from Cong. Rec. v. 68, pt. 5, pp. 4781-4798.

490. Roberts, Columbus. The farmer pays the freight. Ga. Dept. Agr. Ga. Market. Bull. 22(1): 1. Dec. 15, 1938. 280.39 G292
This is a discussion of freight rates on cotton.

491. Southwestern lines' tariff no. 208...Export, joint and local commodity tariff showing rates in cents per 100 pounds applying on cotton, carloads from stations in Arkansas, Kansas, Louisiana, Missouri, Oklahoma and Texas to stations in the following States: Alabama, Connecticut...[etc.] 143pp. St. Louis, J. E. Johanson, agent. Issued Aug. 2, 1932; Effective Sept. 6, 1932. 289.22 So8

492. U. S. Congress. House, Committee on agriculture. Cotton net weight. Hearing...74th. Cong., 1st. sess. on H.R. 8631, by Mr. Fulmer. July 16, 1935. Serial M. 51pp. Washington, U. S. Govt. print. off., 1935. 280.372 Un32

The bill provided also for the standardization of bale covering for cotton. Text of the bill appears on pp. 1-3.

493. U. S. Congress. House, Committee on agriculture. Sales of cotton by net weight. Standardization of bale covering for cotton. Hearings... 70th. Cong., 1st. sess. on H.R. 5677, by Mr. Sandlin, H.R. 10303, by Mr. Fulmer, April 10, May 16, 17, and 19, 1928. Serial R. 103pp. Washington, U. S. Govt. print. off., 1928. 72 Un33S
Contains statements by Arthur W. Palmer and Robert J. Cheatham.

494. U. S. Congress. House, Committee on agriculture. Standardization of bale covering for cotton. Hearings...70th. cong., 2d. sess. on H.R. 14938, by Mr. Fulmer. January 21 and 28, 1929. Serial V. 33pp. Washington, U. S. Govt. print. off., 1929. 72 Un33St
Contains statement of Nils A. Olsen.
Memorandum on the so-called Ransdell bill, S. 872 requiring sale of cotton by net weight and conferring authority on the Secretary of agriculture to prescribe specifications for covering materials, pp. 26-33.

495. U. S. Congress. Senate, Committee on agriculture and forestry. Standardized bales of cotton. Hearing...70th. Cong., 1st. sess. on S. 872, a bill to standardize bales of cotton and requiring sale of cotton by the true net weight of bale. May 16, 1928. 126pp. Washington, U. S. Govt. print. off., 1928. 72 Un3St
Contains a report: Cotton Bagging for Cotton - A Preliminary Report.

496. U. S. Department of agriculture. Comparative ocean freight rates on cotton, 1914-1922. U. S. Dept. Agr. Weather, Crops, and Markets. 1(10): 211. Washington, D. C., Mar. 11, 1922. 1 Ag84We
These are rates from New York to Liverpool, Havre, Genoa, Bremen, and Hamburg.

497. U. S. Department of agriculture, Bureau of agricultural economics. Special report on cotton bale weights. [2]pp., processed. [Washington, D. C.] January 12, 1937. 1.9 Ec71Sr

498. U. S. Interstate commerce commission. Cottonseed, its products and related articles, report proposed by John T. Money...and George Esch. 334pp. [Washington, U. S. Govt. print. off., 1931] 168.1 C82
This is Interstate Commerce Commission No. 17000. Rate structure investigation, part 8.

499. White, John C., and Gould, B. R. The movement of the 1924-25 cotton crop and changes in freight rates on cotton 1913-17. 12pp., processed. [Washington, D. C.] U. S. Dept. of agriculture, Bureau of agricultural economics, 1928. 1.9 Ec752Mo
"...These are the preliminary results of investigations in the transportation of cotton conducted by the Bureau of Agricultural Economics to determine first the facts as to the origin, movement

and destination of the American cotton, and second, the relation of freight rates to the movement of the crop and to prices received by growers. The effect of changes in freight rates upon the marketing of cotton and returns to growers may be dealt with in later studies..."

Freight rates per 100 pounds from specified points of origin to their terminal markets, with their corresponding index numbers are given for the years 1913 to 1917.

500. Wright, John W. Better packaging for American bales. Amer. Cotton Grower 4(3): 17-18. August 1938. 72.8 Am32

501. Wright, John W., and Cheatham, Robert J. Comparative advantages of jute and cotton baggings for American cotton bales. A preliminary report. 24pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, Division of cotton marketing, March 1933. 1.9 Ec733Com

502. Wright, John W., and Gaus, G. E. Permanent identification of cotton bales. 28pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, July 1937. 1.9 Ec733Pi

503. Wright, John W., and Lanham, W. B. Rates for ginning and wrapping American cotton, and related data, seasons 1928-29 to 1935-36. 35pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, January 1937. 1.9 Ec733Ra

504. Youngblood, Bonney, Cheatham, Robert J., and Nixon, R. L. Cotton bagging for cotton. A preliminary report. 13pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, Division of cotton marketing, February 1928. 1.9 Ec733Cb

Dairy Products

505. Allabach, H. D. Motor truck transportation for market milk in the Philadelphia district - tendency there away from rail shipment. N. Y. Prod. Rev. 55(6): 254. Dec. 6, 1922. 286.85 N482

Portions of address before the 6th annual meeting of National Milk Producers' Federation.

506. Ayers, S. Henry, and Johnson, William T., Jr. The problem of transporting milk in hot condition. Jour. Dairy Sci. 6(6): 608-615. November 1923. 44.8 J822

References, p. 615.

Experiments do not show that heat can be used as a substitute for cold during periods of transportation.

507. Bartlett, Roland Willey, and Caskey, W. F. Milk transportation problems in the St. Louis milkshed. With suggested solutions. Ill. Agr. Expt. Sta. Bull. 430, pp. 423-470. Urbana, 1937.

"Because a large proportion of the milk for the St. Louis market is produced on the Illinois side of the Mississippi river, and because economical transportation is a matter of high importance to the farmers in this area, the University of Illinois was asked to study the problem and suggest what could be done to bring about more efficient transportation in the area."

Recommendations are made as follows: "1. In order to avoid unnecessary hauling costs, milk now manufactured at city plants should be diverted to country plants...2. Careful consideration should be given to market policies which will encourage a more even production of milk, since this will make it possible to bring about substantial savings in transportation costs; 3. Hauling routes from farms to milk plants...should be gradually rearranged to reduce the distance that milk is hauled and to increase the volume of milk per load... 4. ...schedules for truck arrivals at receiving stations should be made...5. Since hauling charges paid by small-volume producers... frequently fall below the actual cost incurred, it is recommended that careful consideration be given to establishing a minimum pick-up charge...; 6. Complete records of the costs of operating milk trucks should be kept by truckers since these are essential in order to determine how trucking costs in this area can be lowered and in establishing hauling rates that will be fair to both farmers and truckers."

508. Bartlett, Roland Willey. Transportation of milk in the St. Louis milkshed. Jour. Farm Econ. 18(2): 352-362. May 1936. 280.8 J822

Paper presented at the Twenty-sixth annual meeting of the American Farm Economic Association, New York, December 28, 1935.

A fuller account of the problems of milk transportation in the St. Louis milk shed may be found in Illinois Agricultural Experiment Station Bulletin 430, Milk Transportation Problems in the St. Louis Milkshed, by R. W. Bartlett and W. F. Caskey.

509. Brew, James D., and Fisher, Richard C. Bacteria count limits and the transportation of milk. N. Y. (Cornell) Agr. Expt. Sta. Bull. 460, 37pp. Ithaca, March 1928.

The results of experiments made from milk which spent a varying time on the road are given.

The studies were made from the point of view of shipping milk from the farm to the milk plant.

The conclusion is reached that if the milk is properly handled, exposure to high temperatures during several hours of transportation will not cause a rise in bacteria count.

510. Bricault, C. Transportation and handling of milk. Internatl. Assoc. Dairy & Milk Inspec. Rept. (1922)11: 159. Washington, D. C. [1923] 44.9 In89

Faulty refrigeration of milk in transport is discussed here.

511. Christopher, R. S. Solid CO_2 141 degrees colder than natural ice. Three pounds will hold 30 pounds of butter firm for 24 hours. Butter and Cheese Jour. 21(2): 21, 66. Jan. 8, 1930. 286.85 B98

Describes results obtained by the Tri-State Butter Co. of Cincinnati, Ohio, through the use of this refrigerant in shipping butter in cartons.

512. Connecticut. State college, Storrs. Extension division. Transportation of milk in Connecticut. Conn. Agr. Col. Ext. Div. Econ. Digest for Conn. Agr. no. 67, pp. 549-559. Storrs. March 1937. 275.28 Ec7

"This report is based on data obtained in part from the records of the Milk Administrator and of the Connecticut Milk Producers' Association, but mainly from interviews with individual milk distributors and milk truck drivers. In addition to graphic data such as maps of routes, etc., descriptive and statistical information was obtained which included: (1) the parties to the transportation agreement; (2) description of the route, i.e., length, miles of unimproved road, distances travelled in making collections and in delivering to market, and the time consumed; (3) detailed descriptions of the collection and delivery systems employed; (4) the kind and amount of service rendered; (5) volume of milk transported daily; (6) description of truck as to make, body, type, age, capacity, etc.; and (7) charges for transporting milk and for other services. The volume figures used in this report are for the month of July, 1936."

513. Dow, George F. Costs and returns in operating milk and cream collection routes in Maine. Maine Agr. Expt. Sta. Bull. 374, pp. 147-189. Orono, September 1934.

An analysis of the costs and returns for collecting milk and cream on 90 collection routes was made during the year ending June or July 1932. A motor truck was used on each of these routes with the exception of a few weeks when traveling was difficult and horses were used in some cases. The total cost of operating these routes averaged $1,225 per route during the year.

514. Dow, George F. An economic study of the collection of milk and cream in Maine. Maine Agr. Expt. Sta. Bull. 373, pp. 109-145. Orono, August 1934.

"In the first few pages of this bulletin are presented economic information on recent changes that have occurred in the collection of milk and cream from 1928 to 1931 inclusive. The greater part of the bulletin, however, consists of a study of the factors that affect dairymen's costs for hauling milk and cream."

515. Fenn, F. W. Truck transportation. Creamery and Milk Plant Monthly 13(3): 43-46. March 1924. 44.8 C864; also in N. Y. Prod. Rev. 58: 86. May 14, 1924.

Compares the motor truck with other forms of transportation and shows how it may be used profitably and to advantage.

516. Fitzgerald, C. A. Dairymen demand good roads. Dairy Farmer 26(12): 12-13, 2 -21. December 1928. 44.8 K56

517. Frey, J. J. Status of transportation of dairy products. Great advances made in chilling milk in transit and keeping down bacteria - Shipping ice cream to China. Creamery and Milk Plant Monthly 16(6): 31-35, 39. June 1927. 44.8 C864
This is the Instructive report of Committee to Convention of International Association of Dairy and Milk Inspectors - from report compiled by Ivan C. Weld.

518. Goins, Craddock. Milk magic and the South's opportunities. Manfrs. Rec. 89(17): 74-75. Apr. 29, 1926. 297.8 M31
Discusses the shipping of milk from Marshfield, Wis., to Miami, Fla., a distance of 1300 miles.

519. Groth, A. E. Cream transportation to the local creamery - advice on route arrangements. N. Y. Prod. Rev. 64(26): 960-961. Oct. 26, 1927. 286.85 N482

520. Here's a truck that is refrigerated by fuel that runs the motor. New development offers possibilities for dairies in milk transportation. Milk Dealer 23(9): 54. June 1934. 44.8 M595
Describes the work begun on the Pacific Coast of a revolutionary new development in refrigerated trucks by a subsidiary of the Shell Union Oil Co.

521. Hodges, R. E. Better and cheaper milk by motor truck. Pacific Rural Press 99(8, sec. 1): 273. Feb. 21, 1920. 6 P112
The United Milk Co. of San Francisco brought their milk from Soledad by motor truck with excellent results.

522. Horner, John Truman. The Detroit milk market. Mich. Agr. Expt. Sta. Spec. Bull. 170, 61pp. East Lansing, 1928.
Ch. II. Transportation of Milk, includes discussion of transportation rates; percentage of price going for transportation; trucking rates; and transportation costs in relation to farmer's prices.

523. Hutchings, Carleton B. Transportation of dairy products. Amer. Inst. Agr. Marketing Dairy Products Lesson 8, 40pp. Chicago, 1923. 280.3 Am34D
The study outline includes methods of shipping milk, rates and shipping rules, service provided for dairy shipments, elements of good transportation for butter, freight rates on butter, and the transportation of cheese.

524. Ingles, W. M. Transportation - not trucks. Creamery and Milk Plant Monthly 13(7): 62-63. July 1924. 44.8 C864
An article in favor of the electric truck as opposed to the gasoline truck.

525. Keeping down temperature of milk in transit. Milk Dealer 20(5): 46. February 1931. 44.8 M595
Describes the results of a test made in conjunction with a fieldman of the Pure Milk Association of Chicago in which insulated blankets were used to cover the milk cans.

526. Kroha, George F. Keeping milk cool en route. N. Y. Prod. Rev. 56(8, sec. 2): 387. June 20, 1923. 286.85 N482
How insulation can be used to remove the necessity of refrigeration in transit.

527. Kunkel, Fred E. Motorcycle delivery cuts costs and gives service. N. Y. Prod. Rev. 69(26): 1360. Apr. 30, 1930. 286.85 N482
The advantages of the motorcycle in retail delivery of dairy products are listed.

528. Losses in milk transportation. Creamery and Milk Plant Monthly 9(10): 71. October 1920. 44.8 C864
Describes the two kinds of losses - those due to milk souring in transit and those which are mechanical, such as leakage, theft, etc. Suggestions are offered for their prevention.

529. Lyon, H. H. A bit of milk history. First shipments of New York State milk to New York by rail moved over Erie railroad. Amer. Creamery and Poultry Prod. Rev. 82(12): 400. July 22, 1936. 286.85 N482

530. Make first commercial shipment of milk by airplane. Milk Dealer 19(9): 84. June 1930. 44.8 M595
The first commercial shipment was made on June 10, 1930 from the Kingoke Farms, Springfield, Mass., to White Bros., Boston milk dealers.

531. Milk car for the Boston & Maine. Railway Age 74(28): 1450. June 16, 1923. 288.8 R136
The Laconia Car Company, Laconia, N. H., has completed the delivery of 25 milk cars to the Boston & Maine. The construction of the car is described in detail.

532. The motor truck markets milk. For long hauls the truck is a saving in time and money. Dairy Farmer 21(4): 16-17, 36-37. Feb. 15, 1923. 44.8 K56
Advantages of trucks over teams for milk hauling are discussed.

533. New Lehigh Valley milk cars. By slight change in ice bunkers capacity of 25 new cars is increased 12 per cent. Railway Age 78(3): 229-230. Jan. 17, 1925. 288.8 R136
Details of construction are given and diagrams are included.

534. New type milk cars for the Lehigh Valley. Departure from unconventional design has effected increase in loading capacity - Unique truck construction. Railway Mech. Engin. 99(1): 35-38. January 1925. Libr. Cong. TF1.A3

535. New York (State) Department of farms and markets. Statistics relative to the dairy industry in New York State 1922; together with Report on transportation of milk. N. Y.(State) Dept. Farms and Markets Bull. 158, 125pp. Albany, 1923. 2 N482

Part II, Transportation of Milk and Other Dairy Products, covers pp. 75-125 and is discussed under these headings: Rate history; milk train rates to New York City; local New York State rates; baggage car rates; express rates; new equipment (milk container car); motor truck; train schedules (by railroads and showing rates); and rates on other dairy products (butter, cheese, and condensed milk.)

536. Nicholas, John E. The warming of milk in transit. Agr. Engin. 19(2): 61-62. February 1938. 58.8 Ag83

Paper no. 797 in Journal Series of the Pennsylvania Agricultural Experiment Station.

Studies were made on cold fresh milk transported in a truck under conditions approximately similar to those on average Pennsylvania routes.

537. O'Hare, R. J. Development of milk transportation. Amer. Creamery and Poultry Prod. Rev. 70(8): 376-379. June 25, 1930. 286.85 N482

Some interesting facts from the record of New York City's milk business - Tank car and truck development.

538. Parshall, V. M. Milk transportation. N.Y.(State) Agr. & Markets Dept. Bull. 241: 173-199. Albany, August 1930. 2 N482

Milk transportation to New York City is discussed under these headings: History of milk transportation; Tank cars and trucks; and History of milk rates.

Train schedules which include rate per 40-qt. can LCL to New York City are included.

539. Pearson, A. M. Milk distribution and motor trucks. Purchasing trucks, management and operation and plans in wholesale and retail transportation. Creamery and Milk Plant Monthly 18(7): 42, 44, 46. July 1929. 44.8 C864

540. Pollard, A. J. Transportation of milk and cream to Boston. Vt. Agr. Expt. Sta. Bull. 437, 42pp. Burlington, 1938.

"This study embraces four main purposes: first, to outline the Boston milk- and cream-sheds and to note the relative importance of various areas in the sheds at the different seasons of the year; second, to describe the methods of transportation from the various parts of the sheds and to determine the importance of each; third, to compare the various methods as to rates and services performed; and, finally, to check the accuracy of the federal reports of milk and cream receipts."

541. Quality butter by parcel post. Hoard's Dairyman 60(2): 35. July 30, 1920. 44.8 H65

Tells how L. W. English of Vermont, markets 7000 lbs. of butter a year by parcel post.

542. Ross, Harry Albert. Changing methods of milk transportation. N. Y. (Cornell) Agr. Col., Dept. Agr. Econ. and Farm Mangt., Farm Econ. no. 39, pp. 549-551. Ithaca, November 1926. 280.8 C812

"At a recent hearing before the Interstate Commerce Commission, the New England Railroads which have been attempting to obtain a twenty per cent increase in milk and cream rates, offered an exhibit which showed that Central Territory milk and cream rates are considerably higher than New England rates. To combat this evidence, a survey covering the transportation of milk in the Chicago and St. Louis districts, was made at the request of the Producers' Committee..."

A table shows the cost of transporting milk to Chicago by motor truck and rail from various points in Illinois.

543. The rural transportation problem. The motor truck an important ally of all older transportation systems. Amer. City (Town and County ed.) 22(1): 21-22. January 1920. 98.58 Am31T

544. Scanlan, John J. An economic study of the transportation of milk in the Philadelphia milkshed in relation to the operations of the Interstate milk producers' association, inc. U. S. Farm Credit Admin. Coop. Div. Bull. 13, 151pp. Washington, D. C., April 1937, rev. 1939. 166.2 B87

Bibliography, pp. 137-139.

In the section, Hauling from receiving stations to Philadelphia, freight rates and freight rate reductions are discussed.

545. Scanlan, John J. New opportunities for milk co-ops. News for Farmer Coops. 3(8): 6, 12. November 1936. 166.2 N47

The changes in methods of milk transportation due to the advent of truck hauling and their significance are discussed.

546. Scanlan, John J. "Stop-go" in cooperative milk hauling. News for Farmer Coops. 4(1): 8-9, 14. April 1937. 166.2 N47

Inefficiency in the assembling and collection of milk from the farms is described and remedies suggested.

547. Schon, Pierre. Milk transportation and truck legislation. How existing and prospective regulations and taxation restrict the use of trucks, increase cost and scrap equipment. Milk Plant Monthly 22(4): 50-65. April 1933. 44.8 C864

This paper was read at a meeting of the Production Section of the International Association of Milk Dealers at Detroit.

"It contains a thorough discussion of the difficulties of truck transport, the restrictions as to dimensions and weights and the exorbitant taxation imposed by some state laws. The diversity of regulations in adjoining states is brought out as one of the causes of trouble."

548. Scott, E. F., Hartman, M. S., and Steury, Peter. Butter industry traffic matters. Amer. Creamery and Poultry Prod. Rev. 73(11): 444, 446, 448. Jan. 13, 1932. 286.85 N482
Discusses rates, churning in transit, pick-up and delivery service and the increase in truck movements.

549. She markets farm butter by parcel post. Regular customers pay premium for quality product. Dairy Farmer 24(11): 22. June 1, 1926. 44.8 K56
Mrs. Charles L. Harner of Harrison County, West Virginia, markets her butter profitably by parcel post.

550. Shipping milk 1800 miles to market. Sci. Amer. 135(4): 296. October 1926. 470 Sci25
Describes the shipment and arrival in perfect condition of milk from Marshfield, Wisconsin, to Miami, Florida.

551. Snow ice proves efficient refrigerant on milk route. Tests show it to be more effective than block ice. Milk Dealer 21(11): 55-56. August 1932. 44.8 M595
The tests were made in the Golden Guernsey Dairy, Milwaukee, Wis.

552. Spencer, Leland. Assembling milk at country plants. N. Y. (Cornell) Agr. Col., Dept. Agr. Econ. and Farm Mangt., Farm Econ. no. 52, pp. 904-908. Ithaca, May 1928. 280.8 C812
This study of the methods and costs of hauling milk from farms to country milk plants included 56 plants receiving milk from 6,212 farms. The analysis is intended to show how competition between country plants affects the cost of handling milk in these plants and the cost of transporting it.

553. Spencer, Leland. Costs of hauling milk by individual dairymen compared with rates charged by commercial haulers. N. Y. (Cornell) Agr. Col., Dept. Agr. Econ. and Farm Mangt. Farm Econ. no. 57, pp. 1070-1071. Ithaca, February 1929. 280.8 C812
"For distances of one mile or less, the average cost of hauling by individual dairymen was about the same as the average of rates charged by commercial haulers. For hauls longer than one mile, the cost of individual hauling was more than the commercial rates..."
A table shows costs of individual hauling and rates charged by commercial haulers.

554. Spencer, Leland. Costs of hauling milk on commercial routes. N. Y. (Cornell) Agr. Col., Dept. Agr. Econ. and Farm Mangt., Farm Econ. no. 54, pp. 953-954. Ithaca, September 1928. 280.8 C812
Data relative to the costs of operating seventy-six commercial routes are presented.
"The conclusions reached...are that commercial hauling generally is much cheaper than individual hauling if human labor and horse

labor is worth as much to the farmer as to the commercial hauler, and that commercial hauling can be done more economically with trucks than with horses wherever the condition of the roads is favorable to the use of trucks. It is apparent that improved roads and snow removal are important factors in the reduction of hauling costs."

555. Spencer, Leland. An economic study of the collection of milk at country plants in New York. N. Y. (Cornell) Agr. Expt. Sta. Bull. 486, 47pp. Ithaca, 1929.

Costs of hauling by individual dairymen and on commercial routes are analyzed in this bulletin. Horses and wagons or automobiles and trucks were variously used.

556. Spencer, Leland. An economic survey of the Los Angeles milk market. Calif. Agr. Expt. Sta. Bull. 513, 106pp. Berkeley, May 1931.

Transportation of milk and cream, pp. 73-76. Tables show Agencies hauling milk to Los Angeles distributors, August 1930; Rates charged by public truckmen for hauling milk to Los Angeles, December 1930; and Rates charged for transportation of cream to Los Angeles, December 1930.

557. Spencer, Leland. Effect of size of load on costs of hauling milk on 59 commercial routes. N. Y. (Cornell) Agr. Col., Dept. Agr. Econ. and Farm Mangt. Farm Econ. no. 55, pp. 971, 977. Ithaca, November 1928. 280.8 C812

The 59 truck routes were divided into four groups - those carrying 10 hundredweight or less of milk per trip, those carrying 11 to 20 hundredweight, those carrying 21 to 30 hundredweight, and those carrying over 30. The average costs per hundred pounds of milk on these routes were as follows - on the six smallest routes, 29.8 cents with an average hauling distance of 4.9 miles; on the eight largest routes, 13.9 cents per hundred pounds with an average hauling distance of 8 miles; on the next to smallest route, 20 cents with an average haul of 6.2 miles; and on the next to largest route, 16 cents with an average haul of 7.2 miles.

558. Spencer, Leland. Methods and costs of hauling milk in the country. N. Y. (Cornell) Agr. Col., Dept. Agr. Econ. and Farm Mangt., Farm Econ. no. 53, pp. 915, 921-923. Ithaca, June 1928. 280.8 C812

Tables show: Methods of hauling milk in the country; Kind of vehicle used by dairymen for hauling milk; Costs of hauling milk by individual dairymen; and Costs of hauling milk various distances.

559. Steele, H. B. Trucking problems of dairy cooperatives. Amer. Inst. Coop. Amer. Coop. 1930, v. 1, pp. 356-365. Washington, D. C. 280.29 Am3A

"Trucking problems of cooperatives arising out of transportation of milk produced on the farms of members, and the delivery of this

product to the market, divide themselves into two specific groups: (1) Those problems which have to do with the delivery of the milk from the farmer's milk house to the receiving station or city platform, as the case may be, (2) Those problems which affect the price when milk is delivered to receiving stations by the producer, and all subsequent expenses, including transportation costs from that point to the city market, are borne by the dealer..."

Discussion, pp. 364-365.

Mr. Steele thinks that complete control of transportation from the farm to the platform should be in the hands of the cooperative association.

560. Stitts, Tom G., and Laughlin, Gordon C. Hauling milk and cream from the farm to the plant. Coop. Jour. 11(2): 41-72. March-April 1937. 280.28 C7824

561. Stitts, Tom G. Truck route procurement of cream. Better control of hauling by the creamery essential to economical operation and quality control. Amer. Creamery and Poultry Prod. Rev. 83(2): 62-65. Nov. 11, 1936. 286.85 N482

Extracts from an address before National Creamery Buttermakers' Association, Nov. 11, 1936, La Crosse, Wis.

562. Theophilus, D. R. Eliminating wooden shipping boxes in Idaho. A plan of economizing on package costs which has a limited application - used when butter is printed promptly by receiver. Amer. Creamery and Poultry Prod. Rev. 76(2): 54. May 10, 1933. 286.85 N482

563. Tinley, James Maddison, and Blank, Martin Hersh. An analysis of the East Bay milk market. Calif. Agr. Expt. Sta. Bull. 534, 110pp. Berkeley, June 1932.

Transportation of market milk from dairies to city plants, pp. 72-80, includes tables showing volume of milk hauled and transportation rates from various country points to Oakland, June 1931.

564. To correct transportation evils in Ohio. Creamery and Milk Plant Monthly 10(4): 40. April 1921. 44.8 C864

Lists the suggestions for improvement of service made by representatives of the Ohio Dairy Products Association, baggage agents of steam roads operating in Ohio, and agents of interurban electric lines operating in the State.

565. Truck brings isolated creamery within 48 hours of market. Plant 150 miles from nearest railroad. Natl. Butter & Cheese Jour. 23(12): 12. May 10, 1932. 286.85 B98Bu

This is the plant of the Montezuma Creamery Association, Cortez, Colo.

566. The trucking problem. Natl. Butter & Cheese Jour. 29(17): 28-29. Sept. 10, 1938. 286.85 B98Bu
Discusses the trucking problem in its relation to the transportation of milk and cream.

567. Trumbower, Henry C. Transportation of milk by motor truck. Creamery and Milk Plant Monthly 13(9): 39-53. September 1924. 44.8 C864
Results of a survey of milk transportation for eight large cities - Philadelphia, Detroit, Baltimore, St. Paul and Minneapolis, Milwaukee, Cincinnati and Indianapolis.

568. Tufft, J. E. Milk transport in California. Hoard's Dairyman 81(9): 252. May 10, 1936. 44.8 H65
Describes the California Milk Transport, a trucking concern operating in the Clearwater-Hynes area in Los Angeles County.

569. U. S. Tariff commission. Milk and cream. Report...to the President of the United States. Differences in costs of production of milk and cream in the United States and in the principal competing country, as ascertained pursuant to the provisions of section 315 of title III of the Tariff act of 1922. With Appendix. Proclamation by the President. 74pp. Washington, Govt. print. off., 1929. 173 T17M
Transportation costs of milk, both Canadian and domestic, to the principal markets of the United States are discussed on pp. 26-27. Three methods of treating these costs are listed.
Transportation costs of cream, both Canadian and domestic, are discussed on pp. 36-37. Three methods of treating these costs are outlined.

570. Use of insulated trucks for hauling cream. Natl. Butter and Cheese Jour. 28(15): 10-11. Aug. 10, 1937. 286.85 B98Bu
Describes the fleet of insulated trucks which bring cream to the Brooklyn, Iowa Co-operative Creamery Association.

571. Varney, H. R. Transportation of milk and cream to the New York market. N. Y. (Cornell) Agr. Expt. Sta. Bull. 655, 79pp. Ithaca, August 1936.
"The purpose of this study was three-fold: first, to obtain facts concerning the volume of milk and cream moving from country plants to city plants in the New York metropolitan area; second, to ascertain how New York City's milk supply was transported from the country plants to the city, and the changes in methods of transportation that have taken place; and third, to determine the costs of hauling by truck, and some of the factors affecting these costs..."

572. Varney, H. R. The transportation of milk to the New York market. N. Y. (Cornell) Agr. Col. Ext. Bull. 308, 22pp. Ithaca, October 1934.
Discusses the early history of milk transportation to the New York market; amount delivered by farmers to the market; rail transportation; truck transportation; and long-time changes.

573. Webb, Warfield. Where the idea to "let George do it" may work out profitably. Milk Plant Monthly 25(8): 32. August 1936. 44.8 C864
Presents a truck leasing plan for the consideration of milk dealers.

574. Which truck is most economical - heavy, medium, or light? Concentrated Milk Indus. 1(5): 44. January 1931. 44.8 C74
"Out of a total of 184 dairy products manufacturing companies operating 1,847 trucks, 1,259 were light delivery, 514 medium duty, and 74 heavy duty trucks..."

575. Wieland, Harold G. Profits are made or lost through materials handling. [Wieland dairy company, Chicago] Food Indus. 2(10): 442-447. October 1930. 389.8 F737
The various phases of the transportation problem in the dairy industry are described with reference to this particular company.

576. Wisconsin milk to Florida. Hoard's Dairyman 71(9): 356. Mar. 25, 1926. 44.8 H65
Tells of the 1800-mile journey of milk from Wisconsin to Florida.

Freight Rates

577. Brown, Alfred A., and Donley, J. Elizabeth. Milk cartage in the Southwick-Agawam area of the Springfield milkshed. Mass. Agr. Expt. Sta. Bull. 363, 26pp. Amherst, May 1939.
"Cartage rates are a fundamental factor in any program for stabilizing the fluid milk market. This study analyzes these rates in the Southwick-Agawam section of the Springfield milkshed for 1935 and suggests ways of minimizing the present inequities."
Trucking rates are discussed on pp. 14-22; and Proposed reorganization of rates structure on pp. 22-26.

578. Elkinton, F. M. Cheese from Wisconsin and defined territory to Arkansas, Louisiana, Oklahoma and Texas. I. & S. 2116. Armour & co., et al. vs. Abilene & Southern ry. co., et al., I. C. C. docket 15880. Wilson & co., inc., et al., vs. Abilene & Southern ry. co., et al. I.C.C. docket 15880, sub. 1. Brief in behalf of intervenors, Cheese dealers association. F. M. Elkinton...Attorney for intervenors. 41pp. Milwaukee, Wis., 1924. 289.22 E15
"The carriers involved in this complaint have filed with the Interstate Commerce Commission supplements cancelling present carload commodity rates on cheese from Wisconsin producing points to Southwestern Territory. These supplements, cancelling commodity rates, have been suspended by the Interstate Commerce Commission under its Investigation and Suspension Docket 2116. A portion of this proceeding is an effort of the carriers to justify such cancellations..." - Statement of issues, p. 1.
Armour & Co. have asked for the establishment of carload commodity rates on cheese from points in Wisconsin to points in Southwestern territory.

579. Hammerberg, Donald O., and Sullivan, W. G. An economic analysis of the charges for transporting milk to Connecticut markets. A preliminary report on the project: "Supply and transportation of milk in Connecticut." 26pp., processed. Storrs, Connecticut Agricultural experiment station, 1937. 280.344 C763

Questions raised by this study include 1. Are the independent truckers' rates high enough? 2. Control of transportation by distributors; 3. Public regulation of transportation and of transportation rates; 4. Producer or cooperative control of milk transportation and of transportation rates.

580. Jones, H. F. Seek oleo freight rate cut. Amer. Prod. Rev. 87(23): 613. Mar. 29, 1939. 286.85 N482

H. F. Jones of National Poultry, Butter and Egg Association reports proposal to reduce rail tariffs on oleomargarine well below rates on butter.

581. McBride, Charles Grover. Freight rates on Ohio butter, cheese and condensed milk. Ohio Agr. Expt. Sta. Bimonthly Bull. 11(6): 252-253. Wooster, November-December 1926.

Freight rates on butter and cheese in 1926, from Columbus, Cincinnati, Pittsburgh, Baltimore, New York, Philadelphia and Boston to Toledo, Lima, Springfield, Cincinnati, Columbus, and Cleveland, Ohio, are shown; as are freight rates on butter and cheese for various periods from 1915 to 1926, by shipping point and market.

582. New York State farm bureau federation. Freight rates on milk should be reduced. Bur. Farmer (N. Y. ed.) 7(5): 9. January 1932. 280.82 B89

The New York Federation is convinced that freight rates on milk in the New York Milk Shed are too high.

583. Spencer, Leland. Charges for hauling milk on truck routes. N. Y. (Cornell) Agr. Col., Dept. Agr. Econ. and Farm Mangt., Farm Econ. no. 47, pp. 761-762. Ithaca, September 1927. 280.8 C812

Rates charged by 72 commercial haulers for transporting milk from the 1174 farms to 20 milk stations in New York State are shown. The rates vary from 5 to 27.5 cents per 100 pounds increasing with the distance of the farm from the plant.

584. Voorhies, Edwin C. Dairy products. Calif. Agr. Expt. Sta. Bull. 514, 188pp. Berkeley, October 1931. (Series on California crops and prices)

Freight and express rates, including refrigeration charges are discussed on pp. 185-186.

Tank and Container Cars and Trucks

585. A. C. Nielson co. How tank truck hauling saved $37,456.30 each year. Actual survey of an Eastern dairy. Milk Dealer 19(2): 57-59. November 1929. 44.8 M595
Describes the savings to the dairy through the use of two 1,630-gallon truck tanks and a tank trailer of the same capacity for the transportation of milk a distance of 175 miles into New York City.

586. All-metal streamline tank car introduced by Bordens. Milk Plant Monthly 25(3): 38. March 1936. 44.8 C864
The car, designed to transport milk, is described and illustrated.

587. Demonstrate new type tank trailer for bulk milk shipments. Milk Dealer 23(11): 40. August 1934. 44.8 M595
"Designed to recapture bulk milk shipping for the railroads, a new type tank trailer has been perfected and was demonstrated before a group of milk distributors late in July. It will be put into use in the New York milk shed during the next few months for experimental purposes."

588. First all-metal, stream-line milk tank car is launched by Borden's. Refrig. Engin. 31(3): 169. March 1936. 295.9 Am32J

589. Gallagher, F. S. Recent developments in use of container cars. Saving in manual handling by container system - Application to transportation of milk in bulk. Railway Age 73(19): 833-835. Nov. 4, 1922. 288.8 R136
Address delivered before the Society of Terminal Engineers, New York, Oct. 10, 1922.
"The container system of handling L.C.L. freight is too young to enable any definite or concrete figures in connection with costs to be given, but I will endeavor to draw a word picture that will show the economy and safety effected through the handling of less than car load freight by the container system..."

590. Handling milk in specially constructed tank cars. Large glass lined steel tanks save expense in handling and haulage - Refrigeration in transit eliminated. Railway Mech. Engin. 95(12): 763-764. December 1921. Libr. Cong. TF1.A3

591. Heavy cream via tanks. Amer. Prod. Rev. 83(22): 663. Mar. 23, 1938. 286.85 N482
Borden successfully adopts new large container holding 500 gallons.

592. Hotis, Ralph P. Transporting and handling milk in tanks. U. S. Dept. Agr. Tech. Bull. 243, 24pp. Washington, D. C., August 1931. 1 Ag84Te
The object of this study was to determine the methods of handling milk delivered to the plant in tanks, the labor and time requirements

of tank delivery, the advantages and disadvantages of such delivery, and the cost of handling milk in this way. Data on 300 tank trucks, 89 trailers, and 53 tank cars were collected by the bureau in 1927-1929; and observations were made on 82 tank trucks, 29 tank trailers, and 28 tank cars.

593. Hungerford, Edward. Ten-ton milk cans. The new container system simplifies railroad handling of farm products in bulk. Country Gent. 89(45): 4, 16. Nov. 8, 1924. 6 C833
These containers, which can be carried equally well by freight car or motortruck, are described.

594. Kroha, George F. Borden's in New York install truck and car tanks. Creamery and Milk Plant Monthly 15(8): 78. August 1926. 44.8 C864
The Borden's Farm Products Company use these tanks in their New York City business.

595. Kroha, George F. Glass lined truck tanks. A consideration of savings effected compared with shipping in cans. N. Y. Prod. Rev. 56(17): 822. Aug. 22, 1923. 286.85 N482

596. Kroha, George F. Modern milk transportation. Latest developments and improvements in the tank car. Its economy. N. Y. Prod. Rev. 54(23): 1034-1035. Oct. 4, 1922. 286.85 N482

597. M. D. T. develops trailer tank for milk service. Special flat car with turntables carries two trailers having combined capacity of 4,100 gallons. Railway Age 97(8): 235-236. Aug. 25, 1934. 288.8 R136
This new type of equipment was developed by the Merchants Despatch Transportation Company, East Rochester, N. Y.

598. The milk-container car. Sci. Amer. 128(5): 311. May 1923. 470 Sci25
A description and illustrations of the car are included.

599. Milk tank cars and trucks. Creamery 11(10): 98, 100. October 1922. 44.8 C864
A description of newly designed milk tank cars and trucks, with a list of their advantages over other methods of transportation.

600. Mulholland, F. X. Milk tank cars in use. B. & O. Railroad installs three on run between Pittsburgh and West Farmington. N. Y. Prod. Rev. 52(24): 1314-1315. Oct. 12, 1921. 286.85 N482

601. New co-ordinating equipment for handling milk containers. Railway Age 100(26): 1055. June 27, 1936. 288.8 R136
"Containers for milk, with equipment for transferring them from highway trailer to flat car and flat car to trailer, have been developed by the Motor Terminals Company, New York, N. Y..."

602. New rail-truck containers permit rapid transfer, save handling costs. Food Indus. 8(3): 113-114. March 1936. 389.8 F737
New equipment for the transportation of milk was demonstrated in Weehawken, N. J., by the Motor Terminals Company of New York.

603. Poole, James E. The milk can to disappear. The new thermos tank car presages a revolution in the fluid milk industry. Breeder's Gaz. 86(20): 467. Nov. 13, 1924. 49 B74
The tank car is described and the fact that freight rates are favorable to this method of transportation is illustrated.

604. Rail - highway transport of milk. New York, Ontario & Western and Motor Terminals, Inc., develop an unique co-ordinated system. Railway Age 105(9): 322-323. Aug. 27, 1938. 288.8 R136
This system, effective for the transportation of milk in containers that can readily be transferred between highway trucks and freight cars, has been in operation for several months.

605. Shipping milk in carload lots. Sci. Amer. 130(4): 243. April 1924. 470 Sci25
Describes a car for milk shipments which is really a thermos bottle on wheels.

606. Smith, Russell S. Transportation of milk in metal tanks. Internatl. Assoc. Dairy & Milk Inspec. Rept. (1922)11: 133-148. Washington, D. C. [1923] 44.9 In89
In February 1922, 13 milk transportation tanks were in use on railway cars or on electric cars, and 68 on motor trucks, or trailers. This article describes experiences of owners of these tanks.

607. Stainless clad steel milk truck has 3000-gal. capacity. Iron Age 131(15): 579, 593. April 13, 1933. Libr. Cong. T1.I7

608. Tank body for milk transport. Sci. Amer. 124(8): 154. Feb. 19, 1921. 470 Sci25
The tank body is of glass-lined steel.

609. Tank truck hauling proves economical at Libby condensery. All year service given by trucks at Wisconsin plant. Concentrated Milk Indus. 3(4): 6-7. December 1931. 44.8 C74
"Tank trucks are being used by the Libby, McNeill & Libby condensery at Waupun, Wis., as an economical and practical method of hauling milk to the plant from outlying receiving stations. Six tank trucks, each with a capacity of from 1,000 to 1,500 gallons, bring in milk from the six stations to the Waupun plant."

610. Varney, H. R. Costs of hauling milk by tank truck. N. Y. (Cornell) Agr. Col., Dept. Agr. Econ. and Farm Mangt. Farm Econ. no. 91, pp. 2222-2223. Ithaca, October 1935. 280.8 C812

"Cost records for 92 truck routes, over which milk was hauled to the New York market during the year ending June 30, 1933, were sorted according to length of haul. The cost of operation per 100 pounds of milk varied from 12.8 cents for routes loading in the 21-50 mile zone to 53 cents for routes loading in the 261-290 mile zone. These costs for truck transportation include wages of the driver, depreciation, and interest on the equipment, as well as other operating expenses..."

611. Winters, S. R. A tank car for milk. Hoard's Dairyman 63(8): 303. Mar. 10, 1922. 44.8 H65
A tank car used by the Baltimore and Ohio is described.

Fruits and Vegetables

General

612. American fruit and vegetable shippers association. Annual report of manager and secretary. 1-11, [1918]-1928. Chicago. [1919-1929] 280.39 Am3A
Contains material on trade relations, legislation, traffic, transportation conditions; special services, etc.

613. Beard, L. D. Precooling, loading, shipping, and cold storage of fruit and vegetables. Oreg. State Hort. Soc. Ann. Rept. (1924)16: 48-55. Salem. 81 Or32

614. Brown, C. L. The auto truck aids distribution. Calif. Cult. 73(18): 427, 435. Nov. 2, 1929. 6 C12
Cites the large scale use of auto trucks for moving perishables from farm to market as one of the most significant developments in marketing during the past decade.

615. Convention of fruit growers and farmers. Proceedings. Sacramento, Calif. 81 C125
The Library of the U. S. Department of Agriculture has 1st, 1881 to date.
60th-70th issued also as Monthly Bulletins of California State Department of Agriculture, no. 2, v. 17-19, no. 1, v. 20-27.
Title varies.
Partial contents: 53d., 1920 - Perishable freight transportation service for California - present and future, by J. H. Dyer, pp. 658-661; Transportation suggestions to the railroads, by Charles E. Virden, pp. 663-669. Discussion by A. B. Humphrey, pp. 669-671; Freight rates and a protective tariff, by C. C. Teague, pp. 677-679.
54th., 1921 - Report of Transportation committee, by M. E. McKirahan, pp. 438-455. This includes discussion; Water transportation, by C. S. Whitcomb, pp. 456-458. Discussion by Harold C. Smith,

pp. 458-460; by Mr. Collins, pp. 460-462; by Preston W. McKinney, pp. 462-464; Transportation problems of vegetable growers, by Thomas E. O'Neill, pp. 469-472.

56th., 1923 - Report of Fruit growers executive transportation committee, by C. E. Virden, pp. 73-75; Transportation problems, by Fred W. Read, pp. 75-77; Pacific Coast cooperation in transportation problems, by Frank Spinning, pp. 77-81; The relation of the Agricultural Legislative Committee to Western transportation problems, by R. N. Wilson, pp. 81-85; Rates on citrus fruits, by C. O. Cornwell, pp. 85-89; The freight rate structure and its relation to Western agriculture, by H. M. Adams, pp. 96-103; Railway transportation problems, by H. P. Anewalt, pp. 103-105; Railway transportation problems, by C. J. McDonald, pp. 105-114. Discussion by George C. Roeding, p. 115.

60th., 1927 - Vegetable shipments, by O. W. Schleussner, pp. 172-178.

65th., 1932 - "Distribution of agricultural commodities", by Frank E. Scott, pp. 30-35 (The part the railroads have played)

68th., 1935 - New York drayage situation, by Charles S. Brooks, pp. 172-177.

70th., 1937 - Progress in transportation, by Sherman K. Burke, pp. 52-60. Includes discussion.

616. Corbett, Roger B. An economic study concerning the operations of fruit and vegetable shippers in western New York. N. Y. (Cornell) Agr. Expt. Sta. Bull. 453, 67pp. Ithaca, 1926.

"...The chief purpose of this study was to ascertain the costs of the marketing services performed by fruit and vegetable shippers in Western New York and the margins taken by them..."

617. Cricher, A. Lane, and Bates, Edwin. Florida transportation. Field survey. U. S. Dept. Com., Bur. Foreign and Dom. Com. Dom. Com. Ser. 17, 111pp. Washington, D. C., 1927. 157.54 D71

Information as to loadings and unloadings of citrus fruits, fresh vegetables, melons, etc., is included. Survey is made of the State as a whole, and by terminal districts.

618. Cricher, A. Lane. Transportation of Pacific Coast perishables. U. S. Dept. Com., Bur. Foreign and Dom. Com. Trade Prom. Ser. 12, 91pp. Washington, Govt. print. off., 1924. 157.54 T67

"The congestion of terminal facilities and the serious shortage in land and sea transportation facing the producers of perishable products of the Pacific Coast in 1923 were brought to the attention of the Agricultural Legislative Committee of California, representing 35 farm organizations, in its annual meeting held in San Francisco on June 28, 1923. The committee requested the Department of Commerce to undertake a study of the entire transportation and terminal distribution problems of western perishable products, in foreign as well as domestic markets..."

Among the topics treated in this study are: The Movement of Particular Kinds of Fruits and Vegetables (apples, cantaloupes, oranges and lemons, grapes, peaches, tomatoes, and celery); Handling from Producer to Consumer; Domestic Transportation Problems, including difficulties involved in transcontinental shipment, concentration of destination, refrigerator equipment, loss and damage claims, terminals (Chicago, Pittsburgh, Philadelphia, Boston, New York), freight rates, holding under ice; Ocean Transportation Problems; and an Appendix consisting of statistical tables.

Recommendations include the advisability of further study in regard to freight rate structure, canal shipment possibilities; and foreign market possibilities.

619. Crow, William C. Why railroads lose business. U. S. Dept. Agr., Bur. Agr. Econ. Agr. Situation 22(9): 22-23. September 1938. 1 Ec7Ag

Discusses the reasons for the declining rail movement of fruits and vegetables illustrated by conditions in Philadelphia.

620. Day, John. Cutting distance between producer and consumer. Pract. Farmer 116(11): 181-182, 185. June 1, 1920. 6 P88

Describes parcel post service and its advantages to producers in the shipment of perishable products.

621. Duddy, Edward Augustin. Distribution of perishable commodities in the Chicago metropolitan area. Univ. Jour. Business 4(2): 151-181. April 1926. 280.8 Un3

"The specific purpose of the present study is to discuss the transportation of perishable produce by wagon and truck in the Chicago metropolitan area. The study takes account of the movement into and out of the city proper, as well as the physical movement of these commodities within the city. Thus, the attempt is made, on the one hand, to define the area of effective motor-truck transportation for those commodities looking to Chicago for a market. On the other hand, the area of influence of Chicago as a point from which distribution is made by truck is also indicated by the data of the inquiry."

622. Edwards, Brice, and Park, James William. The marketing and distribution of fruits and vegetables by motor truck. U. S. Dept. Agr. Tech. Bull. 272, 88pp. Washington, D. C., 1931. 1 Ag84Te

"This survey covered motor-truck shipments to market from Connecticut and Delaware and parts of Illinois, Indiana, Maryland, Massachusetts, Michigan, New Jersey, New York, Pennsylvania, Virginia, and West Virginia. Motor-truck receipts at a number of cities are considered, and redistribution from city markets by motor truck.

"In the areas named, 136,509 cars of fruits and vegetables were shipped by rail and boat, as compared with estimated motor-truck shipments equivalent to 77,102 cars which moved over 20 miles to market during the one composite crop year, 1928 and 1929.

"It is believed, judging from these sample studies, that between 150,000 and 200,000 cars were trucked to market 20 miles or more in the United States during 1929, as compared with 1,068,745 cars re-

ported shipped by rail and boat..."

The authors conclude that trucks have expedited transportation on short hauls, causing increased production of perishable products at points advantageous to desirable markets; that regional motor-truck jobbing markets and wholesale roadside stands are increasing in number; that products most suited to long-distance transportation by truck are the light, quickly perishable fruits and vegetables; that distances covered by truck have increased; and that redistribution from city markets to surrounding trade territories has increased in volume and in distance.

623. Edwards, Brice. The motor-truck jobber, a stirring newcomer in the perishables trade. Country Gent. 101(2): 6, 80-82. February 1931. 6 C833

Motortruck jobbing in apples and strawberries is described.

624. Edwards, Brice, and Park, James William. Motor-truck movement of fruits and vegetables from Delaware and the Eastern Shores of Maryland and Virginia - 1928. 25pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, June 1929. 1.9 Ec741Mt

Comparison is made of motor-truck and rail movement. Statistics are given by commodity, with State and county of origin, motor-truck car equivalents and cars moved by rail.

625. Edwards, Brice. Motor truck transportation of fruits and vegetables, southern Indiana and southern Illinois, 1928 crop. 37pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, February 1930. 1.9 Ec741Mti

"The purpose of this study was to ascertain the volume of fruits and vegetables that moves to market from southern Indiana and southern Illinois by motor truck, and to ascertain the effects of the use of the motor truck upon production, transportation and distribution."

It was found that in Indiana, 38 per cent of the 1928 crop of fruits and vegetables were shipped by motor truck and in Illinois, 23 per cent. Rail displacement in Illinois, however, was probably not over 10 per cent, because a large part of the truck movement was of low-quality products not suitable for rail shipment.

626. Edwards, Brice. Motor truck transportation of fruits and vegetables, Western New York and the Cumberland-Shenandoah sections of West Virginia, Maryland, and Pennsylvania, 1928-1929. A preliminary report. 29pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, April, 1930. 1.9 Ec741Mtn

"In Western New York, 43,716 cars of the 1928 crops of fruits and vegetables were shipped by railroad compared with 10,605 car-lot equivalents estimated to have been shipped by motor truck. Including shipments of more than 15 miles to factories, about 22 per cent of the total shipments of fruits and vegetables is estimated to have been moved by motor truck.

"Corresponding figures for the Cumberland-Shenandoah sections are: rail 9,640 cars, and estimated motor-truck movement, 1,132 cars, or 11 per cent of the total movement by motor truck..."

627. F., G. B. Marketing by truck. Rural New Yorker 89(5114): 799. June 28, 1930. 6 R88
Discusses trucking of potatoes and apples in Western New York.

628. Farrar, W. B. The changing truck market. Fundamental factors that underlie the marketing of perishable products. Prog. Farmer (Miss. Valley ed.) 35(30): 1304. July 24, 1920. 6 So81
According to the writer there is only one way to market such products successfully - to assemble them in carlots and sell them in the open market inviting competition from all available sources.

629. Fogelberg, Nephthune, and Mumford, Herbert W., Jr. Commercial trucking of fruits and vegetables in nine Atlantic Coast States. U. S. Farm Credit Admin. Coop. Div. Bull. 17, 60pp. Washington, D. C., September 1937. 166.2 B87
"This publication deals with only one phase of the more comprehensive study. [Use of Motortrucks in Marketing Fruits and Vegetables, Bulletin 18] The primary objectives of this phase of the study were to determine the extent to which fruits and vegetables are transported commercially by motortruck; to analyze the services rendered shippers by truck operators and railroad companies; to analyze the costs of operating trucks and to determine the principal factors affecting such costs..."

630. Fraser, Samuel. Rail movement of fruits and vegetables. Rural New Yorker 82(4752): 965-966; (4753): 991-992. July 21, 28, 1923. 6 R88
Describes the growth of rail movements of fruits and vegetables and the markets to which they move.

631. Fresher foods for the giant consumer maw. Evolution of refrigerated trucks in the distribution of perishable foods. Motor Truck News 21(10): 30. April 1930.

632. Graham, C. R. Serving fruit and vegetable shippers by express. Market Growers Jour. 56(5): 120-122. Mar. 1, 1935. 6 M34
Address before the 17th., annual meeting of the American Fruit and Vegetable Shippers Association, Chicago, January 17, 1935.
Describes the part the Express has played in fostering production of and assisting to find markets for Louisiana strawberries, Rio Grande spinach, and California cantaloupes.

633. Harris, Homer A. Demoralized markets. Calif. Cult. 79(8): 115, 121. Aug. 20, 1932. 6 C12
The motor truck is blamed for the low prices on the Los Angeles fruit and vegetable market.

634. Harter, George E. Truck movement of fruits and vegetables relative to distribution and sales in Washington. Wash. State Hort. Assoc. Proc. (1931)27: 78-80. 81 W273
Statistics showing the extent of such movement are included.

635. Hauck, Charles W. Fruits and vegetables received in trucks in the Columbus wholesale market, 1929-1934. Market Growers Jour. 57(7): 390. Oct. 1, 1935. 6 M34

636. Hawaii. University. Agricultural extension service. Annual summary of fruit and vegetable unloads in Honolulu, January 1 to December 31, 1937. 29pp., processed. Honolulu, 1938. 275.29 H312As

637. Hoch, Homer. The railroads and the produce industry. Natl. League Comm Merchants. Off. Proc. (1928)36: 30-42. Washington, D. C. 287 N214
Discusses the valuation of railroad property, the O'Fallon case and the Hoch-Smith Resolution.

638. Hodson, Edgar A., and Holloway, Keith L. Grading, packing and shipping. various paging, processed. Little Rock, Arkansas University, College of agriculture, Extension service, 1924. 280.31 Ar4
Information and charts are given for apples, string beans, cabbage, cantaloupes, cucumbers, grapes, peaches, potatoes, strawberries, sweet potatoes, tomatoes, and watermelons.

639. Jackson, W. L. Truck receipts of fruits and vegetables now available for the San Francisco market. Calif. Cult. 76(2): 29, 51, 55. Jan. 10, 1931. 6 C12
Truck receipts have been added to the unload reports issued by the Los Angeles office of the Federal-State Market News Service.
Methods of collecting these reports are described.

640. Knight, George L. Where are we going with the fruit and vegetable truck situation. Idaho State Hort. Assoc. Proc. (1934)39: 83-89. 81 Id12

641. Koch, John J. Perishable shipments. Natl. Stockman & Farmer 48(15): 365-366. July 12, 1924. 6 N21
Radio talk from Stockman Studio over KDKA by Mr. Koch, Freight traffic manager, Pennsylvania Railroad, Central region.
Discusses containers, causes of damage, and reconsignments.

642. A market on wheels. Market Growers Jour. 30(10): 310. May 15, 1922. 6 M34
Describes the selling of fruits and vegetables from the car in Pittsburgh where thousands of carloads are received yearly at one of two railroad terminals.

643. Michigan. Department of agriculture, Bureau of foods and standards, Division of orchard, nursery and fruit inspection. General law governing the shipment of fruits and vegetables. (Act. No. 207, Public Acts, 1913) Mich. Dept. Agr. Circ. 103, 1p. 1923.

644. Missouri Pacific stimulates agricultural progress. Efficiency in getting perishables to market aids development of irrigated regions in South Texas. Railway Age 85(10): 449-452. Sept. 8, 1928. 288.8 R136

"The advantages of unified and co-operative control of transportation in the handling of perishables are well illustrated by the development of certain farming areas in South Texas since the Missouri Pacific took over the Gulf Coast Lines, the San Antonio, Uvalde & Gulf and several smaller lines..." From more or less uncertain schedules, the time in transit from Harlingen, Texas to St. Louis, Missouri, was reduced substantially.

645. Motts, G. N. Motor truck marketing of Michigan fruits and vegetables. Mich. Agr. Expt. Sta. Spec. Bull. 227, 47pp. East Lansing, November 1932.

Literature cited, p. 47.

"The purpose of this study is to describe the present status of the motor transportation of Michigan fruits and vegetables with particular reference to the following phases of the subject: 1. The points of origin and the destinations of motor truck movements; 2. The volume of motor truck movements; 3. The part which the growers, dealers, truckmen, truck carriers, and jobbers play in the motor transportation of Michigan fruits and vegetables; 4. The operating methods of the truckmen and truck carriers; 5. The advantages and disadvantages of motor transportation to each of the marketing groups; [and] 6. An analysis of the changes suggested by the marketing groups for the improvement of the motor transportation of Michigan fruits and vegetables."

646. Motts, G. N. Motor truck transportation in relation to cooperative fruit and vegetable marketing in Michigan. Mich. Agr. Expt. Sta. Quart. Bull. 19(1): 36-44. East Lansing, August 1936. 100 M585

The effect of truck transportation on cooperative marketing is discussed under these headings: Use of trucks; sales to merchant truckers; grading; handling methods and costs; market distribution; effect on prices; and effect on railroad service.

647. National league of wholesale fresh fruit and vegetable distributors. Proceedings of the...annual convention [Boston, etc.] 287 N214

The Library of the U. S. Department of Agriculture has 12th., 1904 to 46th., 1938.

12th., 1904 to 43d., 1935 issued by National League of Commission Merchants of the United States.

Contains report of the Transportation Secretary.

648. Nelson, G. H. How the railroads handle perishable freight. Railway Age 75(26): 1213-1214. Dec. 29, 1923. 288.8 R136

Address before Western Society of Engineers, October 15, 1923.

Methods of icing, and the system of daily reports are described.

649. New Jersey. Department of agriculture. Motor truck receipts of fruits and vegetables at Newark, New Jersey from July 3 to Dec. 31, 1928. N. J. Dept. Agr. Circ. 158, 20pp. Trenton, March 1929. 2 N46C

Receipts are given for apples, asparagus, beans, huckleberries, strawberries, blackberries, raspberries, beets, cabbage, carrots, cucumbers, cauliflower, celery, lettuce, onions, peas, peppers, radishes, spinach, squash, cherries, peaches, tomatoes, sweet potatoes, citron, parsnips, finouche, oyster plants, kale, gooseberries, currants, corn, potatoes, pickles, green onions, egg plants, mint, cantaloupes, rhubarb, pears, pumpkins, elderberries, crab apples, escarole, grapes, parsley, watermelons, turnips, horseradish, mushrooms, green tomatoes, cranberries, yams, field salad, leeks, chicory, and celeriac.

650. New York Museum of science and industry. Fresh fruits and vegetables; how they reach your table. 4pp. New York [1933] 280.3 N4825

Sources, p. 4.

Sources of fresh fruits and vegetables and their arrival in New York by refrigerated transportation are briefly described.

651. Newell, Horace Mead. Some observations on the handling of perishables for shipment. Ill. State Hort. Soc. Trans. (1928)62: 209-220. Springfield. 81 I16

Cautions against improper loading which is often a source of loss.

652. Oley, Robert C. Transportation of New Jersey's fruits and vegetables by truck. N. J. Dept. Agr. Circ. 99, 24pp. Trenton, May 1926. 2 N46C

Surveys were made in Monmouth, Burlington, and Gloucester counties and in Hammonton district. Truck rates to terminal markets are included.

653. Overholser, Earle Long. A study of the shipment of fresh fruits and vegetables to the Far East. Calif. Agr. Expt. Sta. Bull. 497, 77pp. Berkeley, July 1930.

Literature cited, pp. 76-77.

"Because of the distance to markets, California growers and handlers of fruits and vegetables are greatly dependent upon refrigeration in some form for the successful marketing of these perishable crops. Recently the fruit growers and allied interests in their efforts to develop foreign markets for California fruits have desired information concerning the response of perishable agricultural commodities to marine refrigeration. The conditions in the low-temperature compartments on board ship are different from those surrounding perishables under refrigeration on land, and less is known about them. The preliminary studies reported herewith were made in an attempt to obtain information that may be helpful in the proper utilization of ship refrigeration in the future marketing of California's perishable crops."

654. Park, James William. Effect of trucking on quality and price of fruits and vegetables...Address, annual meeting, Atlantic States division of the National Association of marketing officials, Washington, April 24, 1933. 7pp., processed. [Washington, D. C., U. S. Department of agriculture, Bureau of agricultural economics, 1933] 1.9 Ec741E

Figures indicate that on the average the use of the truck has not had a pronounced unsettling effect on prices or supply. Sharp fluctuations have been caused by instances of heavy truck receipts which were unexpected.

Use of the truck has probably resulted in a larger proportion of low-grade or ungraded products being placed on the market but has also tended to improve the condition of products in regard to freshness and desirable stage of maturity.

655. Park, James William, and Edwards, Brice. Shipping fruits and vegetables in mixed carloads. A preliminary report. 32pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, August 1930. 1.9 Ec741Shf

Discusses the volume and origin of mixed car shipments; mixed cars as an aid in distribution; disadvantages, the situation in large markets vs. that in smaller markets; redistribution from large markets; availability of products for shipment in mixed cars; the mixed car situation in important shipping areas; and the situation in important markets.

656. Powell, T. C. Carrying it to market. Railroads are doing a good job with millions of cars of farm stuff. Country Gent. 90(29): 8, 30. July 18, 1925. 6 C833

This article is especially concerned with the shipment of perishable foodstuffs.

657. Price, Bunyan M. The motor truck as a carrier of fruits and vegetables to Greater New York. N. J. Agr. Expt. Sta. Bull. 503, 87pp. New Brunswick, June 1930.

Issued in cooperation with U. S. Department of Agriculture and New Jersey State Department of Agriculture.

Receipts of fruits and vegetables in New York in farmers' and jobbers' markets are shown.

The costs of transportation and marketing by railroad, motor truck, express, boat, and parcel post are discussed and tables show rates from specific shipping points for each method of transportation.

Terminal conditions and requirements are described and the effect of motor trucks on marketing is discussed.

658. Prince, H. F. Safeguarding perishable shipments. Ill. State Hort. Soc. Trans. (1927)61: 169-184. Springfield. 81 I16

Proper loading of fruits and vegetables is discussed.

659. Rasmussen, Marius P. Comparative supplies of fruits and vegetables brought to New York City by railroad, boat, and motor truck, calendar years 1929 and 1934. N. Y. (Cornell) Agr. Col. Dept. Agr. Econ. and Farm Mangt. Farm Econ. no. 92, pp. 2251-2252. Ithaca, December 1935. 280.8 C812

"It seems to be believed by many growers, shippers and members of the produce trade that the motor truck has greatly increased supplies of produce in terminal markets, and that these increased supplies have been responsible for the relatively low prices received during recent years, and particularly during 1934. The facts do not seem to bear out this theory.

Presents statistics to show that actual receipts of fruits and vegetables in New York City were smaller in 1934 than in 1929 when prices were relatively good.

660. Rasmussen, Marius P. The motor truck in relation to fruit and vegetable marketing. Jour. Farm Econ. 18(2): 372-387. May 1936. 280.8 J822

Discussion, by Henry H. Bakken, pp. 384-387.

Paper read before the Twenty-sixth annual meeting of the American Farm Economic Association, New York City, December 27, 1935.

"These data are from a study of the marketing of fruits and vegetables by motor truck, conducted by the Division of Cooperative Marketing, Farm Credit Administration, Washington, D. C., in cooperation with the State Colleges of agriculture in New York, Massachusetts, Connecticut, Pennsylvania, New Jersey, Delaware, Maryland, Virginia, and North Carolina."

661. Rasmussen, Marius P. The motortruck is finding its place. Sound solution to problems of marketing fruits and vegetables requires cooperation of all concerned. News for Farmer Coops. 4(3): 12-14. June 1937. 166.2 N47

Some of the obstacles in the way of efficient marketing by motortruck are listed as: the problem of estimating supplies; inadequate facilities for marketing produce; the need of salesmanship, and the confusing laws in the field of regulation.

662. Rasmussen, Marius P. Some facts concerning means of transportation and methods used in marketing New York State fruits and vegetables. N. Y. (Cornell) Agr. Expt. Sta. Bull. 697, 113pp. Ithaca, 1938.

"The purpose of this study was to obtain such facts as might be available concerning the use of the motor truck and practices of growers and others, incidental to the marketing of fruits and vegetables in the areas economically tributary to New York City, in order that growers, cooperative associations, dealers, and other members of the produce trade might determine the most effective use of the motor truck in marketing fruits and vegetables. It was hoped that data might be obtained showing how those concerned are now meeting the problems which have arisen during recent years, and

that economic bases for effective guidance of movement of produce to market in relation to actual demand might be worked out. Finally, it was expected that some light might be shed on the proper economic position of the motor truck in marketing produce, in state and national transportation."- p. 7.

Brief comparisons of rail and truck rates may be found on pp. 36-38.

663. Rasmussen, Marius P. Some facts concerning use of motor trucks by growers in marketing fruits and vegetables, season 1933-34. N. Y. (Cornell) Agr. Col. Dept. Agr. Econ. and Farm Mangt. Farm Econ. no. 93, pp. 2279-2282. Ithaca, February 1936. 280.8 C812

"Data obtained in 1934 from 2,085 growers in 32 important fruit and vegetable producing areas in New York, New Jersey, Pennsylvania, Connecticut and Massachusetts, show that these growers owned and operated 1,384 motor trucks, the equivalent of about two motor trucks for each three farms..."

The extent of use for marketing fruits and vegetables is discussed and costs of operating are included.

664. Rasmussen, Marius P. Transportation and other problems in marketing fruits and vegetables. Vegetable Growers' Assoc. Ann. Rept. (1936) 28: 211-225. 81 V52

"These data represent preliminary results from a study of the marketing of fruits and vegetables by motor truck, conducted by the Division of Cooperative Marketing, Farm Credit Administration... cooperating with the State Colleges of Agriculture in New York, Pennsylvania, New Jersey, Connecticut, Massachusetts, Delaware, Maryland, Virginia, and North Carolina."

The effect of the truck on prices and grades and serious problems resulting from trucking are discussed.

665. Rasmussen, Marius P. Transportation changes in the northeast and their significance for farm marketing policies in Connecticut. Agr. Policy Conf. Proc. 1935: 15-24. August 1935. 5 C7697

The Proceedings of this Conference were issued as Connecticut State College Bulletin v. 31, no. 2.

Dr. Rasmussen's paper is a discussion of the proper place of the motor truck in the distribution of perishable farm products.

666. Rasmussen, Marius P. Trends and changes in the distribution of fruits and vegetables. Market Growers Jour. 60(5): 136-138. Mar. 1, 1937. 6 M34

667. Rasmussen, Marius P. Use made of motor trucks by growers and shippers in marketing fruits and vegetables, season 1933-34. N. Y. (Cornell) Agr. Col. Dept. Agr. Econ. and Farm Mangt. Farm Econ. no. 92, pp. 2246-2248. Ithaca, December 1935. 280.8 C812

These data are based on research conducted jointly by the Division of Cooperative Marketing, Farm Credit Administration and the Colleges

of Agriculture in New York, New Jersey, Pennsylvania, Connecticut, and Massachusetts.

"Data obtained from 2,085 growers in 32 important areas in New York, Pennsylvania, New Jersey, Connecticut, and Massachusetts, show that out of the 248,098 tons of fruits and vegetables sold by these growers during the 1933-34 season, all but 13,641 tons, or 5.5 per cent, left the farm by motor truck. Only 3.6 per cent of the tonnage was shipped from the farm by growers by rail, and less than one per cent was hauled to market in the grower's wagon."

668. Rasmussen, Marius P. Use of motortrucks in marketing fruits and vegetables; an analysis of the experiences of growers, cooperative associations, and others in nine states tributary to the New York market. U. S. Farm Credit Admin. Coop. Div. Bull. 18, 120pp. Washington, D. C., September 1937. 166.2 B37

"Data concerning sales of fruits and vegetables, costs of operation of motortrucks, and other items, during the year ending June 30, 1934, were obtained from 3,681 growers in 53 intensive producing areas in...[Connecticut, Delaware, Maryland, Massachusetts, New Jersey, New York, North Carolina, Pennsylvania, and Virginia] In addition, somewhat similar data were obtained from 267 growers of fruits and vegetables who patronized the Harlem, Gansevoort, and Wallabout Farmers' Markets in New York City during 1933-34. Facts were also obtained concerning methods of transportation utilized by 134 private country shippers, 58 merchant truckers, and 56 farmers' cooperative associations in these States. Data were also made available concerning costs and factors affecting costs, incurred by 277 commercial motortruck operators who engaged in hauling fruits and vegetables in the area. Sixteen of the leading wholesale commission firms in New York City voluntarily made their records available for analysis in connection with this study." - p. 2.

A preliminary report entitled "Use of Motor Trucks by Cooperative Associations and Others in Marketing Fruits and Vegetables" was issued as U. S. Farm Credit Admin., Coop. Div. Misc. Rept. 10. 166.3 M68

669. Rasmussen, Marius P. Variations in methods of transporting important fruits and vegetables to market, as reported by 939 New York growers, season 1933-34. N. Y. (Cornell) Agr. Col., Dept. Agr. Econ. and Farm Mangt. Farm Econ. no. 94, pp. 2306-2307. Ithaca, March 1936. 280.8 C812

"Data obtained from 939 New York fruit and vegetable growers indicate that the farm motor truck is used extensively in marketing certain crops and hardly at all in marketing others..."

The crops which are largely or in part transported to market by truck are: Potatoes, tomatoes, carrots, celery, cauliflower, onions, peaches, cabbages, cherries, apples, string beans, peas, and pears.

670. Retarders in Potomac yards facilitate movement of perishables. Average operating cost reduced 10.69 cents per car classified - New type control machine used. Railway Age 92(10): 405-407. Mar. 5, 1932. 288.8 R136

"...A large proportion of the traffic through Potomac yard, particularly in the busy seasons, consists of perishables from the South, including citrus fruits and vegetables. Such traffic, of course, requires unusually expeditious and careful handling in order to meet scheduled deliveries at New York, Philadelphia and other northern cities, without deterioration or damage. The car-retarder operation has not only resulted in the faster movement of these perishables but has greatly speeded up the handling of the remaining traffic of merchandise and coal..."

671. Rhodes, Neill. From field to market with Florida vegetables and citrus fruits. 108pp. Tallahassee, Florida Dept. of agriculture, State marketing bureau, 1931. 280.3 F66

Under each commodity studied, discussion is included of containers, carlot loading, rates, and shipments. Commodities are green beans, cabbage, celery, green corn, cucumbers, eggplant, lettuce, green peas, peppers, potatoes, sweet potatoes, tomatoes, watermelons, oranges, grapefruit, pineapples, and strawberries.

672. Robinson, J. Curtis. Activities of the Growers' and shippers' league of Florida. Fla. State Hort. Soc. Proc. (1925)38: 133-137. DeLand, Fla. 81 F66

"The League was organized in December, 1923, for the purpose of handling all the great questions which affect the citrus fruit and vegetable industry in Florida, such as railroad and refrigeration rates, general rules and regulations governing railroad claims..."

673. Russell, Ralph, and Lennartson, R. W. Marketing fruits and vegetables by motor truck in western Maryland. Md. Agr. Expt. Sta. Bull. 407, pp. 299-375. College Park, December 1936.

"Results covering marketing and truck operating costs for the year July 1, 1933 to July 1, 1934, were obtained from 189 Western Maryland fruit and vegetable growers. The truck crop regions near Washington and Baltimore and the fruit-growing areas of Washington County were included in the study."

In tabulating the costs, commission fees made up 16.1 percent of total marketing costs; transportation costs, 27.2 percent; container costs, 38.1 percent; other selling costs, 15.4 percent; and storage, 3.2 percent. These costs are analyzed.

674. Russell, Ralph. Truck transportation of fruits and vegetables in Western Maryland. Md. Agr. Soc. Rept. (1935)20: 270-284. College Park. 4 M366

675. Scherger, George H. Advantages of modern motor freight transportation. Ill. State Hort. Soc. Trans. (1932)66: 257-268. Springfield. 81 Il6
Advantages to the fruit and vegetable producers through motor truck transportation.

676. Sewell, J. C. Cooperative marketing. Idaho State Hort. Assoc. Proc. (1925)30: 32-38. 81 Id12
This is a discussion of the problems which arise through the use of the tramp car system and free diversion.

677. Sherman, Caroline B. Farm to city by motor truck. Amer. Bankers Assoc. Jour. 23(1): 39, 75-76. July 1930. 284.8 Am3
"Swift development of automotive transportation together with highway improvements and wider demand for fresh fruits and vegetables have restored local markets to produce farmers. Much reshipment eliminated but system unorganized."

678. Sherman, Caroline B. The motor truck and the food buyer. Jour. Home Econ. 22(6): 458-462. June 1930. 321.8 J82
Suggested reading list, pp. 461-462.
Advantages and disadvantages of motor truck transportation of fruits and vegetables to the individual consumer are listed and discussed.

679. Sherman, Wells Alvord. Merchandising fruits and vegetables; a new billion dollar industry. 499pp. Chicago and New York, A. W. Shaw co., 1928. 280.3 Sh5
Ch. XVI. Evolution of transportation service.

680. Smith, E. Transportation of fruits and vegetables. Amer. Inst. Agr. Lessons. Marketing Fruits and Vegetables no. 5, 48pp. Chicago, 1923. 280.3 Am34F

681. Solomon, Joseph H. The rail road to recovery in the fruit and vegetable industry. 59pp. New York, [Printed by the Craft linotypers, inc.] 1937. 289 So4
Mr. Solomon discusses transportation methods and problems - rail, water and truck; and cites a need for return to rails. In analyzing the problems he includes market statistics and lists shippers' contentions thus: "a. Great inconvenience in loading and expense in hauling products from the farm to the railroad loading platform; b. Rail shipping necessitates in many instances a drayage charge at the consuming centers, from the railroad terminal to the receiver's store; and c. Transportation charges are disproportionately high."
In conclusion, the author says: "On the one hand, the railroads must readjust their charges; make loading more convenient. The shippers, in turn, must be willing to pay a somewhat higher transportation charge; and they must entrust their produce to the rail carriers. Briefly stated, that is the cure we suggest."

682. Solving the problem of handling perishables. Railway Age 79(12): 502. Sept. 19, 1925. 288.8 R136

The greatest problem which confronts the railway and shippers is the problem of seasonal fluctuation. In order to avoid detentions of cars, terminal perishable committees as parts of the Regional Shippers Advisory Boards, were organized.

683. Sweet, George A. What about the farmers motor truck? President of national and State vegetable growers associations answers theorists with facts about changing transportation of perishables. Market Growers Jour. 52(4): 81-85. Feb. 15, 1933. 6 M34

Is opposed to legislation which would further tax trucks or hamper their use to agriculture or to industry in general.

684. U. S. Department of agriculture, Bureau of agricultural economics. Carlot shipments and unloads of important fruits and vegetables for the calendar years 1918-1934. U. S. Dept. Agr. Statis. Bull. 7, 23, 30, 38, 46, 53. Washington, D. C., 1925-1936. 1 Ag84St

Bulletin 7 was compiled jointly by the Division of Fruits and Vegetables and the Division of Statistical and Historical Research under the direction of E. W. Stillwell, and Lewis B. Flohr, assisted by Mrs. Maude E. Murphy. Later bulletins were compiled in the Division of Fruits and Vegetables; 23, 30, 38, under the direction of Lucy Watt; and no. 53, by Leona Norgren.

The list of commodities varies. Bulletin 53 gives carlot shipment and unload figures for apples, cabbage, cantaloups, celery, grapefruit, grapes, lemons, lettuce, onions, oranges, peaches, pears, plums and fresh prunes, potatoes, strawberries, sweet potatoes, tangerines, tomatoes, and watermelons. Earlier bulletins include more extensive lists.

Statistics are given for a varying number of cities.

Statistical Bulletin 7 covers the years 1918-1923; no. 23, 1924-1926; no. 30, 1927 and 1928; no. 38, 1929 and 1930; no. 46, 1931 and 1932; no. 53, 1933 and 1934.

685. U. S. Department of agriculture, Bureau of agricultural economics. Car-lot shipments of fruits and vegetables from stations in the United States for the calendar years 1920-1935. U. S. Dept. Agr. Statis. Bull. 8, 9, 19, 27, 35, 42, 50, 61. Washington, D. C.. 1 Ag84St

Title varies.

Compiled in the Division of Fruits and Vegetables; Bulletin no. 27 by Estelle Lawrence and Leona Norgren; no.35, 42, 50, 61 by Leona Norgren; and earlier bulletins by Mary Hall.

Continued by Mimeographed report with same title.

These bulletins list the number of cars shipped, total, by State of origin and months, and by State, county and shipping point, for apples, dried apples, asparagus, beans (snap and lima), beets, blackberries, dewberries, and loganberries, cabbage, cantaloups, carrots, casaba melons, cauliflower, celery, cherries, green corn,

cranberries, cucumbers, eggplant, grapefruit, grapes, greens, Honey ball melons, Honey dew melons, lemons, lettuce, mixed melons, mixed citrus fruits, mixed deciduous fruits, mixed vegetables, onions, oranges, peaches, dried peaches, pears, green peas, peppers, Persian melons, plums and fresh prunes, dried prunes, potatoes, spinach, strawberries, sweet potatoes, tangerines, tomatoes, turnips, and watermelons. The list varies.

Statistical bulletins 8 and 9 cover the years 1920-1923; no. 19, 1924 and 1925; no. 27, 1926 and 1927; no. 35, 1928 and 1929; no. 42, 1930 and 1931; no. 50, 1932 and 1933; and no. 61, 1934 and 1935.

686. U. S. Department of agriculture, Bureau of agricultural economics. Carlot shipments of fruit and vegetables from stations in the United States. Calendar year 1936 to date. processed. Washington, D. C. 1.9 Ec741Csf

This report continues the series with the same title, published as U. S. Department of Agriculture. Statistical Bulletins 8, 9, 19, 27, 35, 42, 50, 61 and contains the same type of information.

687. U. S. Department of agriculture, Bureau of agricultural economics. Motor truck receipts of fresh fruits and vegetables at San Francisco by commodities and by counties of origin, 1937. 25pp., processed. San Francisco, Calif., March 1938. 1.9 Ec7Mot

In cooperation with California. Department of Agriculture, Market News Service.

Total and monthly figures are given.

688. U. S. Department of agriculture, Bureau of agricultural economics. Shipping point handbook. Fruit and vegetable inspection service. various paging, processed. Washington, D. C., December 15, 1936. 1.9 M341H 1936

Instructions as to inspection of car equipment and condition, loading, quality and condition of product, pack, size, standards, and grades, etc.

689. U. S. Department of agriculture, Bureau of agricultural economics. Truck receipts of fresh fruits and vegetables at 12 important markets for calendar years 1937 and 1936 stated in car-lot equivalents by months for 1937 and totals for 1937 and 1936. 62pp., processed. Washington, D. C., August 1938. 1.9 Ec741Tf

Also for calendar years 1935 and 1934, and 1936 and 1935 at 11 important markets.

690. U. S. Department of agriculture, Bureau of agricultural economics, Division of fruits and vegetables. Shipments of fruits and vegetables from producing regions to consuming markets by motor truck, 1933 and 1934. Trends in motor-truck shipments, distances shipped, and seasonal movement. 40pp., processed. Washington, D. C., October 1935. 1.9 Ec741Shv

Includes also carlot and boat shipments with approximate motor truck shipments.

691. U. S. Department of agriculture, Bureau of agricultural economics, Division of fruits and vegetables. Unloads of fruits and vegetables at various cities. processed. Washington, D. C. 1.9 Ec741U

Reports issued for these cities are in the Library of the Bureau of Agricultural Economics: Akron, 1926-1937; Albany, 1926-1937; Atlanta, 1923-1937; Baltimore, 1924-1937; Birmingham, 1923-1937; Boston, 1920-1937; Bridgeport, Conn., 1926-1937; Buffalo, 1923-1937; Chicago, 1918-1937; Cincinnati, 1918-1937; Cleveland, 1918-1937; Columbus, 1923-1937; Dallas, 1923-1937; Dayton, 1926-1937; Denver, 1923-1937; Des Moines, Ia., 1926-1937; Detroit, 1918-1937; Duluth, 1926-1937; El Paso, 1926-1937; Evansville, Ind., 1926-1937; Fort Worth, 1924-1937; Grand Rapids, Mich., 1926-1937; Harrisburg, 1923; Hartford, Conn., 1926-1937; Houston, 1926-1937; Indianapolis, 1923-1937; Jacksonville, Fla., 1926-1937; Kansas City, 1918-1937; Lexington, Ky., 1926-1937; Los Angeles, 1923-1937; Louisville, 1923-1937; Memphis, 1923-1937; Milwaukee, 1923-1937; Minneapolis, 1918-1937; Nashville, 1926-1937; Newark, 1923-1937; New Haven, 1926-1937; New Orleans, 1923-1937; New York, 1918-1937; Norfolk, Va., 1926-1937; Oklahoma City, 1926-1937; Omaha, 1920, 1923; Peoria, Ill., 1926-1937; Philadelphia, 1918-1937; Pittsburgh, 1918-1937; Portland, Me., 1926-1937; Portland, Oreg., 1923-1937; Providence, 1923-1937; Richmond, Va., 1926-1937; Rochester, N. Y., 1926-1937; St. Louis, 1918-1937; St. Paul, 1918-1937; Salt Lake City, 1924-1937; San Antonio, 1926-1937; San Francisco, 1924-1937; Seattle, 1923-1937; Shreveport, La., 1926-1937; Sioux City, 1926-1937; Spokane, 1924-1937; Springfield, Mass., 1926-1937; Syracuse, 1926-1937; Tampa, Fla., 1926-1937; Terre Haute, Ind., 1926-1937; Toledo, 1923-1937; Washington, 1918-1937; Worcester, Mass., 1926-1937; Youngstown, Ohio, 1926-1937; Montreal, Toronto, Vancouver, and Winnipeg, Canada, 1935-1937.

692. U. S. Department of agriculture, Bureau of agricultural economics, Division of fruits and vegetables. Unloads of [fruits and vegetables] in...markets by States of origin. processed. Washington, D. C. 1.9 Ec741Un

The Library of the Bureau of Agricultural Economics has the following reports: Apples, 1920-1933; Beans (snap & lima) 1930-1931, 1933-1936; Cabbage, 1922-1933; Cantaloupes, 1922-1933; Carrots, 1933; Cauliflower, 1931-1932, 1934-1936; Celery, 1922-1933; Cucumbers, 1932-1936; Grapefruit, 1923-1933; Grapes, 1923-1933; Lemons, 1923-1933; Lettuce, 1924-1933; Onions, 1922-1933; Oranges, 1923-1933; Peaches, 1917-1933; Pears, 1927-1933; Peas (green) 1931-1936; Plums and prunes (fresh), 1927-1933; Potatoes, 1922-1933; Spinach, 1932-1936; Strawberries, 1922-1933; Sweet potatoes, 1922-1933; Tangerines, 1930-1933; Tomatoes, 1922-1933; Watermelons, 1923-1933; Mixed citrus, 1934-1936; and Mixed vegetables, 1930-1936.

693. Use of motor trucks by cooperative associations and others in marketing fruits and vegetables. Market Growers Jour. 60(5): 128-129. Mar. 1, 1937. 6 M34

694. Weaver, Frederick Pattison. The influence of the truck upon the marketing of fruits and vegetables. Jour. Farm Econ. 13(3): 361-375. July 1931. 280.8 J822

Paper read at 21st annual meeting of the American Farm Economics Association, Cleveland, Ohio, December 1930.

The scope of the truck movement to market in some of the Eastern States is presented and advantages and disadvantages of this method of marketing fruits and vegetables are listed. Among the advantages cited are: the avenue to profitable markets for many growers which has been opened up; and the fact that truck distribution has made available fresh fruits and vegetables in every town, village, and hamlet throughout the year, thus stimulating consumption.

The disadvantages discussed are: The additional competition for growers nearest to market; and the disorganization of market news reporting, inspection service, licensing of dealers and a marketing procedure designed to put order into a distribution system based on railroad transportation.

695. Western fruit jobbers' association of America. Proceedings and minutes of the 5th.-12th., 14th.-16th., 18th.-28th. annual meeting, 1909-1932. [Denver and Omaha, 1909-1932] 286.83 W52

The proceedings of the 13th annual meeting were not published. The proceedings for 1923-1932 (286.83 W52M) were published in the Western Fruit Jobber.

Material on the transportation of fruits and vegetables is contained in these proceedings.

696. Yeoman, Opal V. Summary of carlot shipments of important fruits and vegetables in California, Arizona and Nevada, 1929, by billing stations and including both inter-state and intra-state shipments as reported by the transportation companies. 89pp., processed. Los Angeles, 1930. 1.9 Ec741S

Containers

697. Allman, P. T. Selecting suitable packages for perishable crops. Purdue Agr. 25(9): 190-191. June 1931. 6 P97

Satisfactory packages for fruits and vegetables are described.

698. Carey, L. C. Containers for fruits and vegetables. U. S. Dept. Agr. Farmers' Bull. 1821, 64pp. Washington, D. C., April 1939. 1 Ag84F no. 1821

"This bulletin supersedes Farmers' Bulletin no. 1434, Standard Baskets for Fruits and Vegetables, and Farmers' Bulletin no. 1579, Containers Used in Shipping Fruits and Vegetables."

Containers used for fruits and vegetables are divided into four principal classes - baskets, crates and boxes, barrels, and sacks. Containers of a fifth class - cylindrical drums, have a limited use.

Under each commodity, containers used are described, and those most favored by important shipping districts are listed.

699. Carey, L. C. The dimensional method of testing containers for fruits and vegetables. U. S. Dept. Com., Bur. Standards, Misc. Pub. 161, pp. 128-133. Washington, D. C., 1939. 157.88 M68
Before the 23th. National Conference on Weights and Measures, Washington, D. C., June 3, 1938.

700. Clark, Walter R. Modern development in other packages than the barrel. N. Y. State Hort. Soc. Proc. (1928)73: 259-264. 81 N484

701. Containers used in various sections of U. S. for shipping or for local packaging. Market Growers Jour. 47(8): 657. Oct. 15, 1930. 6 M34
These are containers for vegetable and small fruit shipments.

702. Downing, Fred P. Standard containers for marketing fruits and vegetables. N. Y. Dept. Farms and Markets, Div. Foods and Markets. Foods and Markets 2(18): 21. Albany, February 1920. 280.38 F73
Standard containers are described and the benefits of standardization discussed.

703. Eldridge, J. E. Cheap containers bring poor returns. Peninsula Hort. Soc. [Del.] Trans. (1927)41: 91-92. 1928. 81 P37

704. Ensign, M. R. The bulge pack and poor containers as they affect the marketing of Florida produce. Fla. State Hort. Soc. Proc. (1933) 46: 32-37. 81 F66
Tells why the bulge pack should be eliminated since it is responsible for much damage.

705. Hawaii. Agricultural experiment station. Some recommended truck crop packages and packs for use with territorial grown produce marketed in Honolulu. Hawaii Agr. Expt. Sta. Agr. Notes 136, 10pp. Aug. 26, 1936. 275.29 H312Ag
Diagrams of crates and boxes are included.

706. Hendricksen, I. L. Containers for fresh fruits and vegetables. Better Fruit 23(9): 7-8, 10. March 1928. 80 B46
Material, assembly, packing, and carloading of containers are described.

707. Lorion, A. J. Containers and car-loading methods for the shipment of fresh fruit and vegetables. Kans. State Hort. Soc. Bien. Rept. (1924-1925)33: 107-113. Topeka, 1926. 81 K13
Car loading methods for various types of containers are discussed.

708. Mahoney, C. H. Advantages and disadvantages of a national container act. Vegetable Growers Assoc. Amer., Inc. Rept. (1936)28: 203-210. 81 V52
"The primary object of this talk is to open a discussion on the relative advantages and disadvantages of further legislation which would standardize cartons, crates, boxes and bags used for commodities sold by weight or numerical count..."

709. Park, Charles B. Standard containers for fruits and vegetables. Mich. State Hort. Soc. Rept. (1924)54: 137-139. 1925. 81 M58
The more efficient loading of cars with standard containers is cited as one of the advantages they offer.

710. Pennsylvania. Department of agriculture, Bureau of markets. Rules and regulations providing for standard Climax baskets for grapes and other fruits and vegetables, and for standard crates, baskets and other containers for berries, fruits, and vegetables. Pa. Dept. Agr. Bull. v. 3, no. 17 (Gen. Bull. 348) 8pp. Harrisburg, 1920. 2 P38B
This is Service and Regulatory Announcement no. 1 of the Pennsylvania Bureau of Markets.

711. Pennsylvania. Department of agriculture, Bureau of markets. Rules and regulations providing standard barrels for fruits, vegetables and other farm products. Pa. Dept. Agr. Bull. v. 3, no. 19 (Gen. Bull. 350) 11pp. Harrisburg, 1920. 2 P38B
This is Service and Regulatory Announcement no. 3. of the Pennsylvania Bureau of Markets.

712. Sherman, Wells Alvord. Acts prescribe standard size fruit and vegetable containers. Laws also affect basket manufacturers and transportation and warehousing agencies. U. S. Daily 5(253): 4. Dec. 29, 1930. 280.8 Un33

713. Southern containers. Market Growers Jour. 46(3): 118-120. Feb. 1, 1930. 6 M34
Standard containers for various fruits and vegetables in use in the South are described.

714. Spilman, Harold Addison, and Baker, Thomas Cousins Jones. Method of testing and capacity of fruit and vegetable containers under the United States Standard Container Acts. U. S. Dept. Agr. Misc. Pub. 75, 14pp. Washington, D. C., May 1930. 1 Ag84M
The bulk-for-bulk method, used by the United States Department of Agriculture, which is charged with the duty of making capacity tests of hampers, round stave baskets and splint baskets is described.

715. Spilman, Harold Addison. New laws affecting containers and produce agencies. Ohio State Hort. Soc. Proc. (1930)63: 172-186. 81 Oh3

716. Spilman, Harold Addison. The standard container act of 1928. 6pp., processed. [Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, Division of fruits and vegetables, 1929] 1.9 Ec741Sc

717. Spilman, Harold Addison. Taking the "Con" out of containers. Packing and Shipping 53(1): 49-52. April 1926. Pam. Collect. (Containers)
Describes the standardization of quart berry boxes and Climax grape baskets which had formerly been made in various sizes.

718. State container standards. Market Growers Jour. 37(11): 878-879. Dec. 1, 1925. 6 M34
This is a list of States which have standardized various types of fruit and vegetable containers.

719. Texas. Department of agriculture, Bureau of markets. Texas standards for fruits and vegetables and fruit and vegetable containers, 1931 revision by W. A. Canon. 110pp. [Austin, Tex.] 1931. Pam. Collect. (Standardization-Containers)

720. Thayer, Paul. Loading baskets of fruit and vegetables into cars. Penn. Agr. Expt. Sta. Circ. 116, 12pp. State College, March 1928.
"While each type of package presents an individual problem in stowing, the principles outlined below apply to all: 1. Stow to get the maximum refrigeration or ventilation; 2. Stow to secure protection against cold; 3. Stow to obtain a systematic, regular, and tight load."
The bushel basket is the most widely used container in Pennsylvania.

721. U. S. Congress. House, Committee on coinage, weights, and measures. Fixing standards for hampers, etc. Hearings...69th Cong., 1st. sess. on H.R. 5677, a bill to fix standards for hampers, round-stave baskets, and splint baskets for fruits and vegetables, and for other purposes. April 9, 1926. 28pp. Washington, Govt. print. off., 1926. 280.3 Un322F

722. U. S. Congress. House, Committee on coinage, weights, and measures. Fixing standards for hampers, etc. Hearings...70th cong., 1st sess., on H.R. 8907, a bill to fix standards for hampers, round-stave baskets, and splint baskets for fruits and vegetables, and for other purposes. January 23 and March 5, 1928. 60pp. Washington, U. S. Govt. print. off., 1928. 280.3 Un322Fi

723. U. S. Congress. House, Committee on coinage, weights, and measures. Standard hampers and baskets for fruits and vegetables...Report [to accompany H.R. 5677] 69th. Cong., 1st. sess. House Rept. 935, 3pp. [Washington, D. C.] 1926.
Submitted by Lloyd Thurston.

724. U. S. Congress. House, Committee on coinage, weights and measures. Standards for hampers and baskets for fruits and vegetables. Hearing...67th. Cong., on H.R. 4900...April 29, 1921. 27pp. Washington, Govt. print. off., 1921. 280.3 Un322

725. U. S. Congress. House, Committee on coinage, weights, and measures. Standards for hampers, round-stave baskets, and splint baskets for fruit. Hearing...68th Cong., 1st sess., on H.R. 4035, a bill to fix standards for hampers, round-stave baskets, and splint baskets for fruits and vegetables, and for other purposes. Friday, March 21, 1924. 14pp. Washington, Govt. print. off., 1924. 280.393 Un32Ha

726. U. S. Department of agriculture, Bureau of agricultural economics. [Letters, memoranda, etc. to manufacturers concerning wood rim till basket survey, 1936. 5 nos. Washington, D. C., January 28, 1937-Mar. 22, 1937] 1.9 Ec741Ti

727. U. S. Department of agriculture, Bureau of agricultural economics. List of states which have standardized various types of fruit and vegetable containers with title and address of enforcing official. [Washington, D. C., July 1925, August 1927] 1.9 M34Lf

728. U. S. Department of agriculture, Bureau of agricultural economics, Division of fruits and vegetables. Outline showing federal standardization of fruit and vegetable barrels and baskets. 4pp., processed. [Washington, D. C., 1929] 1.9 Ec741Ou

729. U. S. Department of agriculture, Bureau of agricultural economics, Division of fruits and vegetables. Production and carry-over of fruit and vegetable containers - 1924-1935. processed. [Washington, D. C.] 1.9 Ec741P

730. U. S. Department of agriculture, Bureau of agricultural economics, Division of fruits and vegetables. Table of number of packages per carload. 32pp., processed. Washington, D. C., February 1937. 1.9 Ec741Tab

Commodities listed, each with container and origin are anise, apples, dried apples, apricots, artichokes, asparagus, avocados, bananas, beans, beets, berries (frozen pack), blackberries, broccoli, brussels sprouts, cabbage, cantaloups, carrots, casaba melons, cauliflower, celery, cherries, chicory, coconuts, collards, green corn, crabapples, cranberries, cucumbers, currants, dates, dried fruits, eggplant, endive and escarole, figs (fresh), gooseberries, grapefruit, grapes, greens except spinach, honey ball melons, honey dew melons, horseradish, huckleberries and blueberries, kale, leeks, lemons, lettuce, limes, loganberries, mushrooms, okra, onions, onion sets, oranges, parsley, parsnips, peaches, peanuts, pears, peas, pecans, peppers, persian melons, pineapples, plums and fresh prunes, potatoes, pumpkins, quinces, radishes, raspberries, rhubarb, shallots, spinach, squash, strawberries, sweet potatoes, tangerines, tomatoes, turnips or rutabagas, walnuts, and watermelons.

731. What are standard containers for market garden produce. Market Growers Jour. 46(1): 30-31. Jan. 1, 1930. 6 M34

Describes standard barrels, baskets and berry boxes, hampers and other baskets, and crates and boxes.

732. Why standard measures are proposed. Uncle Sam takes a hand in confusion of hampers and baskets now in use. Market Growers Jour. 36(6): 266-267. Mar. 15, 1925. 6 M34

Proposed standards of hampers, round stave baskets and market baskets are presented here "in such form that the pictures tell the story."

Freight Rates*

733. Baxter, G. W. Freight rates on fruits and vegetables. Ill. State Hort. Soc. Trans. (1931) 65: 472-476. Springfield. 81 I16

734. Briggs, E. S. Freight rates. Ill. State Hort. Soc. Trans. (1925)59: 203-216. Springfield. 81 I16
Discusses high freight rates in general and on fruits and vegetables in particular.

735. Campfield, W. S. High cost ratio of rail transportation. Mich. State Hort. Soc. Rept.(1934)64: 51-59. 1935. 81 M58; Same condensed Ohio State Hort. Soc. Proc. 1933: 78-84. 81 Oh3
Rail and truck transportation costs on fruits and vegetables are compared.

736. Fruit and vegetable rate protest. Pacific Rural Press 122(3): 54-55. July 18, 1931. 6 P112; Same. Calif. Citrogr. 16: 455-456. August 1931. 80 Cl25
Protest of fruit and vegetable shippers against the proposed 15% freight rate increase.

737. Hultgren, Thor. Illustrative comparisons between freight rates on and farm prices of fruits and vegetables. 17pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, December 1934. 1.9 Ec752Il
"Statement prepared at the request of the Interstate Commerce Commission for its hearings in Ex Parte 115, December, 1934, Washington, D. C."
Commodities listed are Maine potatoes, Washington apples, California grapes and lettuce, Georgia watermelons, New York cabbage, Texas onions, Georgia peaches, and Florida tomatoes.

738. Killingsworth, W. S. High freight rates reduce farm land values. Pacific Rural Press 101(18): 635. Apr. 30, 1921. 6 P112
The advance in freight rates have put a burden on the fresh fruit and vegetable producing industry of the Pacific Coast that is more than the traffic will bear.

739. McBirney, J. M. The effect of increased freight rates on Idaho's horticultural industry. Idaho State Hort. Assoc. Proc. (1932)37: 84-85. 81 Id12

740. National perishable freight committee. Perishable protective tariff no. 2 (Cancels Perishable protective tariff no. 1 (Agent J. E. Fairbanks' no. 6) Local, joint and proportional charges and rules and regulations governing the handling of perishable freight at, from, and to points in the United States, also from points in the United States to points in the Dominion of Canada. 337pp., Suppl. no. 26, 81pp. Chicago, Ill., R. C. Dearborn, 1923. 289 [N]

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*See also Freight rates under General Transportation; Dairy Products; Grain; Livestock, Meats and Wool; Railroads; Ocean Transportation; also Highways, Trucking Rates

741. New York (State). Dept. of agriculture and markets. Before the Interstate commerce commission, Department of agriculture and markets, state of New York...Ex Parte no. 115...Witness James W. Harnach. various paging, processed. [Albany, 1934] Folio 289.22 N48
Contains tables showing effect of proposed increased rates on various New York state fruits and vegetables.

742. Quasey, L. J. Freight rates. What has been done and the possibility of securing reduction of rates on fruits and vegetables. Ill. State Hort. Soc. Trans. (1931)65: 213-220. Springfield. 81 I16

743. Yost, Harry. Problems of shippers. Idaho State Hort. Assoc. Proc. (1925)30: 20-25. 81 Id12
Discusses freight rates and other problems of fruit and vegetable shippers.

Loss and Damage in Transit*

744. American railway association. Damage to fresh fruits, melons and vegetables. Recoopering and salvage handling of broken packages at destination points. Presentation and consideration at special meeting...Chicago, Ill., May 15, 1930. 28pp. [Chicago, 1930] 280.3 Am37
Appendix to 1930 Report of Committee on Freight Claim Prevention, American Railway Association, Freight Claim Division.
Contents: The problem, by F. E. Winburn, p. 3; Conditions at destination points, by W. S. Jensen, pp. 4-16; Conditions at initial points, by A. J. Lorion, pp. 16-20; Prevention efforts of origin lines, by R. G. Fagan, pp. 21-24; The remedy, by F. E. Winburn, pp. 24-26.

745. Bier, Robert. Preventing loss in the moving of perishables. Mutual interests of shippers and carriers in eliminating causes of damage in the field and on the road. pp. 424, 425, 430-431. [1935] Pam. Collect. (Transportation of Farm Products) (Not in Dept. Agr. Libr.)
Reprinted from the Express Gazette Journal, 1935.

746. Claim payments again decrease. Fresh fruits and vegetables are the only commodities which show a sizeable increase in 1928. Railway Age 86(14): 795-796. Apr. 6, 1929. 288.8 R136
Claims on fresh fruits and vegetables amounted to 25.7 per cent of the entire claims paid.

747. Ensign, M. R. Grading, packing, and stowing Florida produce. Fla. Agr. Expt. Sta. Bull. 254, 59pp. Gainesville, October 1932.
"Data have been collected from time to time in an effort to classify accurately the different reasons for the apparent decline in

*See also under Fruits; Livestock, Meats and Wool; Railroads

popularity of Florida produce. All of these have indicated the importance of correct methods of grading and packing, two items that have received relatively little attention in Florida. To corroborate these findings, brief studies were made on two of the largest markets, New York and Philadelphia..."

Methods of grading and packing; Causes of broken packages; Loading rules for crates; and Results of breakage are discussed. Official United States and Florida Standards for the Grading of the Principal Fruits and Vegetables are included on pp. 45-59.

748. Fruit and vegetable claims still the most serious problem. Railway Age 96(22): 813. June 2, 1934. 288.8 R136

Address before the 43d. annual meeting of the Freight Claim Division of the American Railway Association.

This is a discussion of general conditions in connection with damage to fresh fruits, melons and vegetables.

749. Gibbs, Harvey W. Transportation claims - prevent or pay them. Better Fruit 19(2): 7-8, 32-33; (3): 11-12, 16-17. August, September 1924. 80 B46

"The object of this article is to point out methods whereby the cost in this important step in marketing [of fruits and vegetables] can be materially reduced if proper effort is made by all interested parties..."

A central claim bureau is advocated; shippers' responsibilities are discussed; and suggestions are given as to loading and bracing. The duties of carriers and the work of inspectors are listed.

750. Hughes, Hugh J. How to protect yourself against shipping losses. Minn. Hort. 49(12): 325-327. December 1921. 81 M66

Advises the shipper how to protect himself against dishonest and unscrupulous methods employed by some dealers, who advertise for and secure shipments of produce without intent to pay.

751. Lloyd, John William, and Newell, Horace Mead. Causes of damage to fruits and vegetables during shipment. Ill. Agr. Expt. Sta. Bull. 379, pp. 83-119. Urbana, June 1932.

Shift of load is described as being the chief cause of damage and the ways in which this may be avoided are detailed.

Other precautions to reduce deterioration in transit are listed as prompt movement of perishables; elimination of poor shipping varieties; and consistent use of refrigeration.

752. Lloyd, John William, and Newell, Horace Mead. Causes of damage to fruits and vegetables during shipment. Ill. State Hort. Soc. News Letter no. 8, pp. 3-4. December 1937. 81 I16N

"Observations made on 249 carloads of fruits and vegetables at the Chicago Produce terminal in the summer of 1931, with a view to determining the causes of damage to such products during shipment, showed the chief immediate cause of damage to be shifting of the loads..."

753. Loss and damage is 2.4 per cent greater in 1929: Fresh fruits, melons, and vegetables are responsible for 27.8 per cent of the total payments. Railway Age 88(16): 924-926. Apr. 19, 1930. 288.8 R136

754. Prince, H. F. To freeze or not to freeze. The whys and wherefores of some frozen cars of produce and how freezing may be overcome. Market Growers' Jour. 43(5): 588, 596, 598-599. Sept. 1, 1928. 6 M34

755. Welsh, F. S. How the New York Central inspects perishables. Loss and damage guarded against by inspection service at points of origin and terminals. Railway Age 71(3): 117-118. July 16, 1921. 288.8 R136

The results of this inspection service have been satisfactory.

756. Wilson, George Lloyd. Perishable protective services. Traffic World 39(3): 153-155; (5): 289-291; (7): 419-420; (9): 541-543; (11): 679-680; (13): 809-810; (15): 952-954; (17): 1082, 1084, 1086; (19): 1203-1204; (21): 1337-1339. Jan. 15, 29, Feb. 12, 26, Mar. 12, 26, Apr. 9, 23, May 7, 21, 1927. 288.8 T672

757. Winburn, F. E. Why $8.65 per car of fresh fruits and vegetables? Railway Age 94(24): 863. June 17, 1933. 288.8 R136

Before the Freight Claim Division of the American Railway Association in annual meeting at Louisville, Ky.

The causes contributing to the excessive claims paid on these commodities are discussed.

Refrigeration*

758. Calkins, E. C. An abuse of refrigerator cars. Railway Age 77(8): 331-332. Aug. 23, 1924. 288.8 R136

This article originally appeared in the May 1924 issue of Fruit Dispatch and was recently re-issued in the form of a reprint.

Every year, according to Mr. Calkins, more and more good cars are being rendered inefficient by wet insulation and less durable through decay. Most of this comes about through icing of vegetable cars on the load so that the floor of the car becomes wet.

759. Crocco, F. B. Handling perishables from Cuba. Marine Engin. 41(1): 39-40. January 1936. Libr. Cong. VM1.M3

Problems of refrigeration, cargo-handling and heating in transporting fruits and vegetables from Cuba to consumers on the Eastern Seaboard are discussed.

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*See also Refrigeration under Fruits; also Railroads, Refrigerator cars

760. Double-deck refrigerator car. Double-deck features of car developed by Fruit Growers Express Company for handling perishable freight susceptible to crushing damage. Railway Age 102(19): 791-792. May 8, 1937. 288.8 R136

761. Hawkins, Lon A. Governing factors in transportation of perishable commodities. Practical and physiological conditions to be met by engineers in railway refrigeration design and operation. Refrig. Engin. 18(5): 130-131, 135. November 1929. 295.9 Am32J

762. Hays, J. L. How the railroads handle perishables from the Pacific Northwest. Better Fruit 24(2): 9, 36. August 1929. 80 B46
Describes the refrigerator cars and services on route which are furnished by the railways.

763. Hendricksen, I. L. Loading fresh fruits and vegetables. Better Fruit 22(11): 5-6, 20, 26-27. May 1928. 80 B46
Loading of refrigerator cars to prevent loss by damage is described in detail.

764. Hill, Robert George, Graham, W. S., Wright, R. C., and Taylor, George F. Comparative efficiency of wire-basket bunkers in refrigerator cars. U. S. Dept. Agr. Bull. 1398, 10pp. Washington, D. C., May 1926. 1 Ag84B
The efficiency of the standard wire-basket bunker as compared with the divided wire-basket type was tested. The cars maintained equal temperatures. The divided wire basket car proved economical in ice consumption, requiring 4,060 pounds less ice in the first test and 3,634 pounds less in the second test.

765. Hukill, William V., and Fisher, Durward Frederick. Present practice with refrigerator cars; outline of investigations by the United States Department of agriculture in fruit and vegetable transport. Refrig. Engin. 30(1): 75-78, 104-105. August 1935. 295.9 Am32J
The development of refrigerated transport of fresh fruits and vegetables is outlined.

766. Hume, W. P. Marketing in refrigerated ships. Calif. Cult. 60(4): 90. Jan. 27, 1923. 6 C12
A description of the proposed new steamship service for California perishables to Atlantic Coast markets.

767. Investigation of body icing of perishables. I.C.C. in co-operation with Department of Agriculture to study practice and effect in equipment. Railway Age 79(2): 91-92. July 11, 1925. 288.8 R136
"The Interstate Commerce Commission, through its Bureau of Service, in co-operation with the Department of Agriculture, is about ready to make an investigation with regard to body icing of perishables in transit. The main object of the investigation is to determine

the value of, and necessity for body icing in the shipment of certain types of perishables, the effect of this practice on the equipment, and the means of obviating any deleterious effects on the equipment from such practice..."

768. Leenhouts, E. J. Quality vs. transportation. Market Growers Jour. 49(12): 705. Dec. 15, 1931. 6 M34
Describes new refrigerator cars for perishables, which were placed in service by the Merchants Despatch, Inc.

769. Pailthorp, Raymond R., and Gibson, Vane G. Refrigerator car heating. Report of investigations conducted by the Office of preservation of fruits and vegetables in transit and storage. 12pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of markets and crop estimates, 1921. 1.9 M3413
Diagrams showing process are included.

770. Perishable handling: a mighty transportation spectacle. New icing methods require changes in pick-up service and transcontinental schedules. Railway Age 99(26): 854-857. Dec. 28, 1935. 288.8 R136
"The prompt and efficient handling of fruits and vegetables from West Coast producing centers to the eastern markets, often more than 3,000 miles away, provides a spectacle unique in world transportation methods..."

771. Perishables hauled long distances in refrigerated trailers. Food Indus. 8: 477-478. September 1936. 389.8 F737

772. Phillips, W. C. Establishing icing facilities on a large scale. System recently inaugurated on Southern Pacific and Union Pacific gives highly satisfactory results. Railway Age 72(9): 533-534. Mar. 4, 1922. 288.8 R136
Describes the new ice plants and icing facilities of the Pacific Fruit Express Company which was organized in 1907 by the Harriman interests "for the purpose of providing the necessary refrigerator cars and furnishing refrigeration and ventilation service for the protection of perishable commodities originating on and moving over its lines..."

773. Read, F. W. The refrigerator car and its influence. Amer. Fruit Grower 47(7): 3, 10, 18. July 1927. 80 G85
The history of the refrigerator car and its value in the shipment of perishable foods are presented here.

774. Refrigeration charges reduced; I.C.C. criticizes relations between railroads and Fruit growers express. Railway Age 86(8): 456-457. Feb. 23, 1929. 288.8 R136
"Present refrigeration charges on fruits, vegetables, berries and melons from points in Florida, Georgia, South Carolina, and

Virginia to destinations in trunk-line and New England territories were found unreasonable in a report and order made public by the Interstate Commerce Commission on February 18 after a detailed investigation of the cost of the service to which they apply..."

775. Shanahan, Edward William. Refrigeration as applied to the transportation and storage of food products. 96pp. London, Gee & Co., 1929. (London School of Economics and Political Science (University of London), Studies in Commerce. Vol. V, Refrigeration) 295 Sh1
Bibliography, pp. ix-x.
Ch. III. The Volume and the Nature of Refrigerated Traffic is a general discussion of perishable products under refrigeration.

776. Wigney, Horace M. Mechanically refrigerated railroad freight cars. Over 100,000,000 lb. of perishables of all kinds handled in three years with only one-thirtieth of a per cent of loss. Railway Age 93(14): 458-460. Oct. 1, 1932. 288.8 R136
Describes the Safety Diesel compression-type car and its operation, and the Safety protective service, 1928-1932. The merits of mechanical vs. ice refrigeration is debated.

Terminals*

777. Branch, George Verne, and Thierwechter, George E. Modern wholesale produce terminal facilities for the larger cities. Planners Jour. 4(1): 8-12. January 1938. 98.52 P692
Discusses the advantages of such terminals which have already been constructed in most of the major cities of the country. The writers believe that within the next few years "numerous cities with a population of 250,000 to 500,000 will be giving consideration to improvements in their produce marketing facilities."

778. California. University. College of agriculture. Some aspects of ship-side refrigeration at San Francisco by the staff of the College of agriculture. 55pp., processed. Berkeley, 1930. 295 Cl24

779. Crow, William C. Concentration markets for perishables. U. S. Dept. Agr., Bur. Agr. Econ. Agr. Situation 22(5): 16-18. May 1938. 1 Ec7Ag
Concentration markets for assembling fruits and vegetables are developing in producing areas, primarily because of the great increase in motortruck transportation. The Sanford, Fla., State Farmers' Wholesale Market is described.

780. Erickson, Arthur S. Study of wastage in fruits and vegetables. 75pp., typewritten. Boston, 1923. 280.3 Er4
Bibliography, pp. 71-72.

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*See also Terminals under these headings: Fruits, General; Highway Transportation; Railway Transportation; Ocean Transportation

This is a part of a larger study "Terminal Marketing of Agricultural Products" issued by the Massachusetts Department of Agriculture, the New England Research Council on Marketing and Food Supply, and the U. S. Department of Agriculture cooperating.

It discusses the causes of terminal wastes due to railroads, to shippers, to wholesalers and commission men and to other causes. Agencies seeking to remedy terminal wastes are listed, and the extent of waste and methods of disposal are presented.

781. Hedden, Walter P. Terminal handling of perishable products from a national viewpoint. World Ports 16(8): 685-704. June 1928. Libr. Cong. HE553.A55

Paper presented before a meeting of the Society of Terminal Engineers, Mar. 13, 1928, New York City.

Discussion, pp. 696-704.

"Summing up...,I think we have this situation: First, all over the country an interest in new produce terminal facilities, brought about by the fact that we now have a long haul refrigerator car transportation. Second, a distinct difference in the kind of facilities which fruit and vegetables require compared to milk and livestock, for example...Third, a difference in commercial control of the product...Fourth, the adaptation of these centralized facilities to the functions of temporary holding, outer yard inspection, display and sale and consolidation right at the freight house. Finally, a sentiment for union terminals accessible to all carriers rather than competitive and exclusive terminals..."

782. Henshaw, Fred W. Produce terminals and the cost of living; a study of Detroit's problem of marketing perishable foodstuffs; and of the avenues to economy found by other cities. 30pp. Detroit, The Evening News association, 1928. 280.3 H39

A series of articles published in the Detroit News, February 27 to March 5, 1928.

The need for a new union terminal market is stressed and experiences in other cities - New York, Chicago, Boston, and Philadelphia - are cited.

783. Pierce, G. W. Shipping via ocean highway. Calif. Countryman 8(4): 6, 24. April 1922. 6 Un34

Describes the "China Basin Terminal" to be constructed at San Francisco largely for the shipment and storage of perishable products.

784. Port of New York authority. Produce terminal requirements in the New York area. Prepared by the Joint marketing research staff. W. P. Hedden, research agent. 19pp. New York, Port of New York authority, 1925. 280.3 P833P

Issued in cooperation with the U. S. Department of Agriculture, Bureau of Agricultural Economics.

785. Stackhouse, R. K. Railroad problems in terminal handling of perishable products in New York City. World Ports 16(9): 722-743. July 1928. Libr. Cong. HE553.A55

Paper presented before a meeting of the Society of Terminal Engineers, New York, May 8, 1928.

In handling freight of this kind a specialized form of vehicle is required; refrigerator cars must be properly serviced in transit; and adequate and extensive terminal facilities must be provided.

Fruits

General

786. American institute of cooperation, 14th., State College of Washington and University of Idaho. American cooperation, 1938; a collection of papers comprising the fourteenth summer session of the American institute of cooperation at State College of Washington and University of Idaho, July 11 to 15, 1938. 734pp. Washington, D. C., American institute of cooperation, 1938. 280.29 Am3A 14th. 1938

Partial contents: Current transportation problems of the far-western apple industry, by Charles B. Bowling, pp. 465-477; Possibilities and limitations of control of shipments as a method of dealing with tree fruit surpluses - I, by H. R. Wellman, pp. 478-495; Possibilities and limitations of control of shipments as a method of dealing with tree fruit surpluses - II, by A. M. Echternach, pp. 496-500.

787. Anson, Austin E. What is the Southern Idaho Shippers' Traffic Association, who composes it and does it assist in fruit marketing? Idaho State Hort. Assoc. Proc. (1934)39: 69-75. 81 Id12

788. Baker, Bert L. The traffic associations and their relation to the fruit industry. Wash. State Hort. Assoc. Proc. (1929)25: 38-40. 81 W273

This is a brief review of the Wenatchee Valley Traffic Association and its functions.

789. Barr, Harry K. Overseas trade through Port of New York and the freight forwarder. Better Fruit 25(2): 8, 37. August 1930. 80 B46

The advantages of New York as a port of export for fruit are listed.

790. Bigelow, Fred N. Ocean fruit shipping plans perfected. Pacific Rural Press 106(10): 231. Sept. 8, 1923. 6 P112

Describes the placing in operation of the fleet of fast refrigerated steamships carrying perishable food products from the ports of the Pacific to the large distributing and consuming centers of the Atlantic seaboard.

791. Butler, Henry. Motor trucks for fruit growers. This is an interesting experience in the use of trucks for hauling fruit. Comparative experiences of several fruit growers. Field Illus. 31(4): 273, 310, 312. April 1921. 42.8 Sp6

792. Chandler, William Henry. Fruit growing. 777pp. Boston, New York, etc., etc., Houghton, Mifflin co., 1925. 93.21 C36
Ch. 26, Harvesting, Transportation and Storage of Fruit and Care after Removal from Storage.

793. Dahl, Arthur L. The motor truck and transportation. Calif. Cult. 56(6): 165, 171. Feb. 5, 1921. 6 C12
Cites the advantages which motor truck transportation has over rail transportation and gives a number of examples.

794. Dunn, Samuel O. The fruit grower and the railroad. Amer. Fruit Grower 43(10): 3, 19. October 1923. 80 G85
Describes the efforts of the railroads to meet the demands of growers. Lower rates are said to be of less importance than other factors in the transportation of fruits. According to Mr. Dunn, they have little to do with the movement of fruit.

795. Edwards, Brice. The motor truck in the small fruit industry. Amer. Fruit Grower 51(4): 8, 22. April 1931. 80 G85
Describes the growth in truck transportation of strawberries, raspberries and grapes.

796. Edwards, Brice. Shipping apples and peaches by motor truck. Amer. Fruit Grower 50(8): 4, 12. August 1930. 80 G85
The advantages and disadvantages of shipping apples and peaches by motor truck are presented.

797. Ellis, Crawford H. Central American and West Indian services of the United Fruit company. World Ports 18(11): 1019-1023. September 1930. Libr. Cong. HE553.A55

798. Fairchild, C. DeVere. Transportation problems of the west. Better Fruit 16(1): 7, 20. July 1921. 80 B46
One of the problems confronting the fruit grower of the Pacific Coast is the efficient and economical transportation of western fruit to the markets of the world.
In regard to ocean shipment of fruit, Mr. Fairchild says:-
"The export trade presents unlimited possibilities; the installation of refrigeration on vessels engaged in general cargo traffic ample to meet the possibilities of the trade at port of entry and tributary territory will revolutionize this outlet for western fruit..."

799. Folger, Clifford. Transportation problems. N. Y. State Hort. Soc. Proc. (1924) 69: 108-117. LeRoy, N. Y. 81 N484
Includes discussion of freight rates, track storage charges, etc., in relation to the fruit industry.

800. Foye, E. M. Four tons of fruit by parcel post. Rural New Yorker 85 (4890): 464. Mar. 13, 1926. 6 R88
Successful marketing of Pennsylvania fruit by parcel post. Rates, packing and quality required are discussed.

801. Fresh fruits marketed by tractor-trailer units. Food Indus. 9: 196-197. April 1937. 339.8 F737

802. Gage, Earle W. Motor trucks market fruit with profit. From coast to coast wise orchardists are using motor trucks and making them pay big dividends in time and money saved. Power Farming 34(12): 6-7. December 1925. 58.8 T41

803. Hodges, R. E. Need motor-speed to market early fruit. Pacific Rural Press 104(4): 78. July 22, 1922. 6 P112
The advantages of trucking fruit to market from Kern Mesa, California are described.

804. Hudson, H. L. Transportation facilities. Oreg. State Hort. Soc. Proc. (1924)16: 56-64. Salem. 81 Or32
Mr. Hudson discusses the effect of steamship service upon horticulture in Oregon.

805. Johnson, F. Lee. The fruit truck problem. Idaho State Hort. Assoc. Proc. (1933)38: 175-177. 81 Id12

806. Kieffer, Donald L. Sea-going laboratory returns from Orient. Pacific Rural Press 119(5): 130, 135. Feb. 1, 1930. 6 P112
Some results of the scientific test expedition sent to the Orient by the Giannini Foundation to learn which fruits will carry and which will not. E. L. Overholser was in charge.

807. Killingsworth, W. S. Transportation and big fruit business. Pacific Rural Press 99(8, sec. 2): 297, 306-307. Feb. 21, 1920. 6 P112
Discusses the railroads as pioneers in long-distance shipping from California, the refrigerator car service, refrigerator car shortage, some items of the expense, are the railroads at fault? some of California's disadvantages, and the question of water-transportation.

808. Knapp, W. McN. Statement showing the movement of melons, peaches and pears originating with Central of Georgia, season 1920-1921. 2 nos. processed. Savannah, Ga., Central of Georgia railway co., [1920] 280.39 C332
The 1921 report covers peaches only.

809. Lehmann, Emil Wilhelm. Motor truck on the fruit farm. Amer. Fruit Grower 44(10): 28. October 1924. 80 G85
Savings in time and costs of hauling produce to market are discussed.

810. Mallison, E. D. Transportation work with deciduous fruits in the northwest. Wash. State Hort. Assoc. Proc. (1928)24: 18-19. 81 W273
Describes the work in the Federal Bureau of Plant Industry on improving conditions of apples and pears in transit.

811. Motor truck hauls fruit better. Pacific Rural Press 99(10): 376. Mar. 6, 1920. 6 P112
The greater speed in marketing and the greater freedom from bruising are listed as advantages.

812. New steamship service to Far East to carry Pacific coast fruits. Calif. Citrogr. 6(5): 178. March 1921. 80 C125
The ships were to be operated from San Francisco to Manila and the East Indies by the Pacific Mail Steamship Co.

813. Overholser, Earle Long. Factors concerning shipment of deciduous fruits. Pacific Rural Press 107(8): 256. Feb. 23, 1924. 6 P112
"The two factors which it is chiefly the desire to suggest are (1) proper maturity of fruit at time of harvest, which means size, color, quality and flavor; and (2) pre-cooling, or the rapid extraction of field heat and the checking of ripening processes after harvest and before loading in refrigerator cars..."

814. Park, James William. Influence of motor-truck transportation on the fruit industry...Address, Pennsylvania horticultural association, Harrisburg, Pa., January 18, 1933. 8pp., processed. [Washington, D. C.] U. S. Dept. of agriculture, Bureau of agricultural economics, 1933. 1.9 Ec741I
"The principal effects or influences of the truck on fruit marketing can logically be classed under four general heads: (1) The effect on market distribution, (2) the effect on quality and grade, (3) the effect on returns to growers, and (4) the long-time economic effects..."

815. Peck, G. W. Harvesting and packing apples, peaches, and pears. N. Y. (Cornell) Agr. Col. Ext. Bull. 257, 32pp. Ithaca, May 1933.
Includes discussion on care in handling the packed fruit; precooling; loading cars; and loss and damage claims.

816. Peck, G. W. Harvesting, grading, packing, and loading apples, with some attention to peaches and pears. N. Y. (Cornell) Agr. Col. Ext. Bull. 126, 45pp. Ithaca, June 1925.
Diagrams show preferred methods of loading. Loss and damage claims are discussed.

817. Peet, V. S. The fruit growers, the shippers and the railroads. Idaho State Hort. Assoc. Proc. (1920)19: 87-92. 81 Id12

818. Plumhof, H. J. The railroads' interest in the fruit industry. Idaho State Hort. Assoc. Proc. (1933)38: 132-141. 81 Id12
Includes discussion of freight rates.

819. Pratt, F. G. Services of the Standard Fruit and Steamship Company. World Ports 18(11): 1023-1025. September 1930. Libr. Cong. HE553.A55

820. Pyrke, Berne A. Shipping fruit to New York City by truck. N. Y. State Hort. Soc. Proc. (1930)75: 226-239. 81 N484
Some of the difficulties of shipping fruit by truck from the Hudson Valley to New York City.

821. Sandilands, G. W. Hauling fruit by motor truck saves growers' money. Calif. Citrogr. 6(4): 111. February 1921. 80 C125
Hauling of oranges and lemons from field to packing house by truck as carried on by the Anaheim Orange and Lemon Association is told here.

822. Sherman, George L. Making money with motor trucks. Amer. Fruit Grower 40(4): 7, 22. April 1920. 80 G85
The truck as a time and money saving factor in the production of fruit.

823. Smith, Edwin. Getting fruit to consumers in better condition. Wash. State Hort. Assoc. Proc. (1933)29: 105-109. 81 W273
Literature cited, p. 109.
Includes discussion of protection of fruit during transportation, and winter shipment of pears.

824. Smith, H. A. Shipping by rail. Better Fruit 17(5): 13-15. November 1922. 80 B46
"In the minds of growers and shippers there appears to be a controversy as to the merits of direct shipments to Great Britain against shipment over land via New York or other eastern port..."
This article considers cost of transportation, methods of handling, time in transit, condition on arrival, and distribution. The balance of points appears to be in favor of shipment via eastern seaboard.

825. Storgaard, L. H. Relief in sight for the green fruit industry. Pacific Rural Press 104(26): 704. Dec. 23, 1922. 6 P112
Relief to be expected through ocean transportation of fruit from the Pacific Coast through the Canal to the Atlantic seaboard is discussed.

826. Teagarden, J. A. Maturity of fruit for eastern shipment. Pacific Rural Press 108(19): 476. Nov. 8, 1924. 6 P112
That early shipment of immature fruit is not to the interest of the consumer or the producer, but sought by jobbers for selfish purposes, is indicated by careful investigation by Mr. Teagarden's committee for investigation of condition of fruit on Eastern markets.

827. Tuttle, S. M. Transportation problems and their effect on the grower. Oreg. State Hort. Soc. Rept. 1937: 33-36. 81 Or3

828. [Walton, W. H.] Water shipment of Pacific Coast fruit. Better Fruit 16(5): 5-6. November 1921. 80 B46
Water transportation is fast becoming a means of moving Pacific Coast fruits. This article shows the development of shipping by boat and the benefits derived from it.

829. Weaver, Frederick Pattison. The effect of truck transportation on fruit grades and standards. Amer. Inst. Coop. Amer. Coop. 1932: 410-419. Washington, D. C. 280.29 Am3A
Discusses the influence of long distance trucking on grades; various effects of short distance truck hauling; the Pennsylvania survey; opinions of men in the trade; etc.

830. Whitney, D. J. Shipping fruit profits vs. losses. Pacific Rural Press 104(4): 80. July 22, 1922. 6 P112
Suggestions as to handling and shipping fruit for profit.

Containers*

831. Blair, Milton J. Changes in the American fruit basket during the last thirty-five years. Va. State Hort. Soc. Proc. (1936)41: 160-172. Staunton. 81 V81

832. Burkholder, C. L. Extra width corrugated pads for bushel baskets. Amer. Fruit Grower 43(9): 19. September 1923. 80 G85

833. Carey, L. C. New packages for fruits. Md. Agr. Soc. Rept. (1936) 21: 165-171. 4 M366

834. Cary, N. Leroy. Fruit packages of wood. Better Fruit 18(3): 13-14, 16. September 1923. 80 B46
The advantages of wooden boxes for shipment of fruit, both by rail and by water are set forth.

835. Clark, Walter R. "Modern development in other packages than the barrel." N. Y. State Hort. Soc. Proc. (1928)73: 259-266. LeRoy, N. Y. 81 N484
Includes discussion.

836. Dahill, Edward, Jr. Loading freight cars to prevent claims. Amer. Fruit Grower 46(12): 8, 26. December 1926. 80 G85

837. Derickson, W. T. The most suitable package for fruit. Peninsula Hort. Soc. [Del.] Trans. (1926)40: 62-64. 81 P37

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*See also Containers under the following headings: General Transportation; Fruits - General, Apples.

838. Eldridge, J. E. Description and demonstration of the round stave peck basket. Md. Agr. Soc. Rept. (1922)7: 189-194. College Park, 1923. 4 M366

Discussion, p. 194.

The round stave peck basket is used for certain fresh fruits and is especially adapted to parcel post marketing. The basket and methods of packing it are described.

839. Gourley, J. H. Market packages for fruit. Ohio Farmer 148(15): 340-341. Oct. 8, 1921. 6 Oh3

The bushel basket and the bushel crate are the most popular containers in Ohio.

840. Krantz, S. O. Fruit box supply for 1920 reported serious. Better Fruit 14(9): 14, 36. March 1920. 80 B46

Because of better prices for lumber, material that was ordinarily made into box shooks was expected to be used for other purposes, thus causing a shortage of fruit boxes.

841. Phillips, Howard. Florida fruit packages. Fla. State Hort. Soc. Proc. (1936)49: 54-59. DeLand, Fla. 81 F66

The standard box, the eight pound bag, the half box bag, bulk, and the Bruce box are discussed.

842. Sears, Fred C. The problem of fruit packages. Amer. Fruit Grower 45(7): 4, 25. July 1925. 80 G85

The requirements of a good fruit package are listed as: Carrying the fruit safety; convenience for consumer; attractive appearance; and moderate cost.

843. Spilman, Harold Addison. The value of the newer and smaller packages for marketing fruit. Md. Agr. Soc. Rept. (1927)12: 191-199. College Park. 4 M366

844. Starker, T. J. Efficient boxing of fruit. Better Fruit 17(3): 9. September 1922. 80 B46

Rules for proper construction and nailing of boxes are listed.

845. Winter, J. D., Alderman, William Horace, and Waite, Warren C. Packing Minnesota fruits for markets. Minn. Agr. Expt. Sta. Bull. 323, 18pp. University Farm, St. Paul, September 1935.

This bulletin discusses the use of various types of baskets, crates, and cartons for packing apples and plums. The basket seems most desirable for Minnesota apples; while plums are marketed in various types of containers with no apparent trend toward standardization.

The various types of boxes and crates for shipping berries are described.

846. Winter, J. D., Alderman, William Horace, and Waite, Warren C. Picking, handling, and packing fruits for market. Minn. Univ. Agr. Ext. Div. Spec. Bull. 169, 11pp. [University Farm, St. Paul] July 1935.
Discusses the proper type of container to use in packing apples, raspberries, and strawberries.

Freight Rates*

847. Adams, Samuel. Freight rates on fruit must be reduced. Growers and railroads both suffer and heavy losses will be sustained if present tariffs continue into new crop season. Amer. Fruit Grower 41(3): 9. March 1921. 80 G85

848. Anson, Austin E. Fruit transportation rates. Idaho State Hort. Assoc. Proc. (1934)39: 171-176. 81 Id12

849. Are the railroads blind or helpless? Better Fruit 27(3): 5-6. September 1932. 80 B46
This is a review of the rate situation of the fruit industry of the Northwest.

850. Bergtholdt, J. E. A fruit grower on freight rates. Pacific Rural Press 108(14): 340-341. Oct. 4, 1924. 6 P112
Describes the procedure of raising and lowering rates and says that railways have an advantage over shippers in that, when presenting their case to the Interstate Commerce Commission, they have the services of a large staff of experts. A discussion of why rates should be reduced is included.

851. Coast fruit industry endangered by present freight tariffs. Calif. Cult. 56(19): 615. May 7, 1921. 6 C12
"As a result of the investigation made by a representative committee of the principal food producing and shipping interests of the State, the very startling statement is made that owing to the increased freight rates brought about by the enforcement of the federal transportation act of 1920 the grower finds each acre of land he controls saddled with a tax which to all intents and purposes is as binding as if he voluntarily had placed a mortgage on his acreage, provided he ships his product out of California."

852. Gilbert, H. M. Some problems of the fruit industry with particular reference to cold storage and lower freight rates. Wash. State Hort. Assoc. Proc. (1924)20: 23-26. 81 W273
Mr. Gilbert says: "The future of the fruit industry depends on a reduction in freight rates."

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*See also Freight rates under General Transportation; Agricultural Commodities - General, Dairy Products, Fruits and Vegetables - General, Grain, Livestock, Meats and Wool; Railway Transportation; Ocean Transportation; also Trucking Rates under Highway Transportation

853. Haga, Oliver O. Green fruit rate case. Idaho State Hort. Assoc. Proc. (1930)35: 83-85. 81 Id12

854. Haga, Oliver O. The status of the freight reduction case. Idaho State Hort. Assoc. Proc. (1929)34: 92-100. 81 Id12
The Public Utilities Commission of Idaho filed a complaint against 535 railroads for a reduction of rates on eastbound shipments of apples, prunes and other deciduous fruits.

855. [Illinois agricultural association, Transportation dept.] Progress report on fruit rate survey undertaken by the Illinois agricultural association, Transportation department at the request of a committee... representing the various fruit interests in the State. Ill. State Hort. Soc. Trans. (1927)61: 145-148. Springfield. 81 Il6

856. Teague, Charles C. Relation of freight rates to California's fruit production. Calif. Citrogr. 6(10): 342, 367-368. August 1921. 80 Cl25
Statistics show effects of increased freight rates on California production of lemons, oranges, rice, beans, raisins, grapes, olives, walnuts and almonds, dried prunes, dried apricots, dried peaches and fresh apples.

Loss and Damage in Transit*

857. Duruz, W. P. Getting the fruit to market. Calif. Countryman 9(3): 4, 22. March 1923. 6 Un34
Proper care in wrapping apples and other fruit to prevent disease and injury in transit is described.

858. Hodges, R. E. Fruits in transit need air - cold, dry, fresh. Pacific Rural Press 103(9): 248, 253. Mar. 4, 1922. 6 Pl12
Discusses losses from damage in transit.

859. Lloyd, John William, and Newell, Horace Mead. Some factors influencing the keeping quality of fruit in transit. Ill. Agr. Expt. Sta. Bull. 350, pp. 451-484. Urbana, June 1930.
Literature cited, p. 484.
The factors discussed which may have an important effect upon the condition of fruit upon arrival in market are: Care in handling during the harvesting and preparation of the products for market, delay in getting the fruit under refrigeration, and the type of package used.

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*See also under Agricultural Commodities - Fruits and Vegetables, Livestock, Meats and Wool; Railway Transportation - Safety, Adequacy and Economy of Service.

860. Markets and marketing. Amer. Fruit Grower 42(7): 21. July 1922. 80 G85
Discusses the rejected car problem, one of the hardest problems with which the shipper must contend.

861. Paper pads in fruit packages. Better Fruit 24(11): 10-11. May 1930. 80 B46
Padding of fruit boxes is desirable "to prevent bruising in the course of ordinary handling and shipping and to prevent much of the damage to the bottom layer apples in the carload which is often mistakenly called 'freezing injury.'"

Refrigeration*

862. Allen, Frank Wisdom, and McKinnon, L. R. Precooling investigations with deciduous fruits. Calif. Agr. Expt. Sta. Bull. 590, 142pp. Berkeley, June 1935.
Includes discussion of tests with cherries, apricots, plums, peaches and nectarines, pears, apples, and grapes; precooling in refrigerator cars, and methods of shipping precooled fruit.

863. Allen, Frank Wisdom. Precooling of fresh fruits. Amer. Fruit Grower 46(5): 12. May 1926. 80 G85

864. Allen, Frank Wisdom. Refrigerated transportation of deciduous fruits from California. Refrig. Engin. 32(3): 165-169. September 1936. 295.9 Am32
Paper read at 7th. International Congress of Refrigeration, The Hague, Holland, June 16-26, 1936.

865. Alquist, P. D.L. & W. fruit refrigerator cars. Special attention given to air circulation and insulation - A.R.A. standards closely adhered to. Railway Age 79(24): 1099-1101. Dec. 12, 1925. 288.8 R136
Describes the refrigerator cars built by the American Car and Foundry Company for the Delaware, Lackawanna & Western for use in the transportation of fruit, especially of bananas from New York to distant inland cities.

866. Alquist, P. Fruit refrigerator cars for D.L. & W. Insulated and ventilated to afford protection in cold and hot weather - A.R.A. standards closely followed. Railway Mech. Engin. 100(1): 26-29. January 1926. Libr. Cong. TF1.A3

867. Anderson, Norman T. "Refrigeration in transit." Peninsula Hort. Soc. [Del.] Trans. (1927)41: 37-41. 81 P37
This discussion refers especially to strawberries and peaches in transit.

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*See also Refrigeration under Fruits and Vegetables; also Railroads, Refrigerator Cars

868. California fruit exchange, Standardization dept. Refrigeration test trip of six cars of plums and other deciduous fruits from Central and Northern California points to Chicago and New York City, June 19th. to July 1st., 1924 conducted...in the interests of the California growers and shippers protective league, San Francisco, California. 36pp. [San Francisco, 1927] 295 C12

869. Car precooling takes a big jump. Pacific Rural Press 128(1): 22. July 14, 1934. 6 P112
Test shipments of fruits are reported upon.

870. Dennis, S. F. Refrigeration in relation to fruit in transit. Fla. Agr. Col. Ext. Bull. 24: 14-17. Gainesville, January 1920. 275.29 F66
This is a discussion of the pre-cooling of cars in which citrus fruit is shipped.

871. Fraser, Samuel. Trials of a pioneer. Rural New Yorker 83(4779): 133. Jan. 26, 1924. 6 R88
Describes the trials of Parker Earle, who was "the pioneer of the shipment of fruit under refrigeration." Some of the early cars are described.

872. Gaylord, Fay Claude, Fawcett, Kenneth Ingleton, and Hienton, Truman Edward. Precooling fresh fruits in refrigerator cars. Agr. Engin. 16(3): 113-115. March 1935. 58.8 Ag83
Describes the tests in the precooling of cantaloupes, peaches, and strawberries which were conducted by the Purdue Agricultural Experiment Station. The shipments were followed through to their destination.

873. Geiger, C. W. The new plant of the Pacific fruit express. Refrig. World 64(10): 18-19. October 1929. 295.8 C67
Icing facilities for refrigerated cars are described.

874. Handling fruit across the continent. Northern Pacific more than doubles perishable movement by careful attention to refrigeration. Railway Age 85(6): 253-255. Aug. 11, 1928. 288.8 R136
Perishable traffic from the Yakima Valley district of Washington was increased from 6,854 cars in 1921 to 15,147 cars in 1927, with a reduction in claims despite long hauls.

875. Kohagen, C. W. New method of shipping fruit under refrigeration. Better Fruit 24(11): 5-6. May 1930. 80 B46
"Radical changes in the methods of shipping fruit under refrigeration are probable, as a result of the successful experiments with the new Iceless Refrigerator and Heater car, as it promises not only to stabilize the uncertainties of fresh fruit shipment, but to cut down the pre-cooling capacity necessary in cold storage at loading points, as it may be possible to load fruit into these cars without pre-cooling..."

876. Lloyd, John William, and Newell, Horace Mead. Observations on the refrigeration of some Illinois fruits in transit. Ill. Agr. Expt. Sta. Bull. 334, pp. 511-544. Urbana, 1929.
Literature cited, pp. 543-544.
"Data showing the rates of refrigeration in transit of eight cars of peaches, strawberries, and apples shipped under various conditions are presented and discussed."

877. Mallison, E. D., and Powell, Charles Lincoln. Heavier loading of precooled cars. Wash. State Hort. Assoc. Proc. (1929)25: 14-15. 81 W273
The advantages of heavier loading of precooled cars are presented.

878. Mallison, E. D., Gorman, Edward A., Jr., and Hukill, W. V. Protection of apples and pears in transit from the Pacific Northwest during the winter months. U. S. Dept. Agr. Tech. Bull. 550, 54pp. Washington, D. C., 1937. 1 Ag84Te
Literature cited, pp. 53-54.
This is a study of proper control of temperatures within refrigerator cars loaded with fresh fruits shipped during periods of low outside temperatures from the Pacific Northwest.
Thirty-five tests, using 217 cars, over a period of 14 shipping seasons have been made. Results have shown the need for improvement in methods.
Methods used are described in detail.

879. Newell, Horace Mead, and Lloyd, John William. Air circulation and temperature conditions in refrigerated carloads of fruit. Ill. Agr. Expt. Sta. Bull. 381, pp. 159-224. Urbana, July 1932.
Literature cited, p. 224.
"Data showing air circulation and temperatures observed in 18 carloads of apples, peaches, and strawberries shipped under various conditions are presented and discussed."

880. Overholser, Earle Long. Keeping fruits by marine refrigeration. Pacific Rural Press 117(9): 278-279. Mar. 2, 1929. 6 P112
Certain factors which are recognized as affecting the keeping quality of fruit in cold storage are set forth since marine refrigeration is essentially cold storage while enroute to foreign markets.

881. Overholser, Earle Long, and Moses, Ben Duncan. Precooling of fresh fruits and temperatures of refrigerator cars and warehouse rooms. Calif. Agr. Expt. Sta. Bull. 496, 34pp. Berkeley, June 1930.
Literature cited, p. 34.
The effects of precooling of warehouserooms and cars on pears, grapes, oranges and peaches are shown.
"It costs in addition to transportation charges about $105.00 for the delivery of a pre-iced car with average re-icing en route, to Chicago. The delivery of a dry car costs $21.00. To manufacture and put ice in a dry car costs about $4.50 a ton. The icing with 15,000 pounds would cost about $34.00, and this plus the initial cost of the dry car would effect a saving of about $50.00 when the car was not re-iced en route."

882. Pacific Fruit Express refrigerator cars. Insulation around the sides and ends is unbroken; a continuous layer of cork in the floor. Railway Age 69(27): 1145-1148. Dec. 31, 1920. 288.8 R136
Text and diagrams show the construction of these cars.

883. Refrigerated vessels serving the Pacific Northwest fruit industry. Better Fruit 32(1): 23. August 1937. 80 B46

884. Refrigeration conducted with fruit laden cars. Comparative temperatures with overhead and end ice bunkers - electrical thermometer readings. Railway Age 68(9): 631-635. Feb. 27, 1920. 288.8 R136
Apparatus, method of testing, general results, icing in transit and inspection at Chicago are described.

885. Refrigerator cars for the Fruit growers express. Waterproof floors, permanent floor racks, depressed pans and basket bunkers feature design. Railway Mech. Engin. 102(11): 639-641. November 1928. Libr. Cong. TF1.A3

886. Refrigerator cars for the Fruit growers express company; equipped with basket bunkers, permanent floor racks, depressed floor pans and waterproof floors. Railway Age 85(15): 715-716. Oct. 13, 1928. 288.8 R136
The design and construction of these cars are described.

887. Richardson, Marion B. Railroad refrigeration performance. Shipment of Southern citrus fruits and the California melon crop. Refrig. Engin. 18(4): 98-101. October 1929. 295.9 Am32J

888. Ruth, W. A. Dry ice for the refrigeration of fruit. Ill. State Hort. Soc. Trans. (1927)61: 191-197. Springfield. 81 I16
Warns against the use of dry ice on fresh fruits and vegetables until a proper method of handling it has been developed.

Terminals*

889. New terminal speeds fruit movement from coast. Large yard of the Southern Pacific and modern icing plant at Fresno incorporate interesting features to expedite car movement. Railway Age 89(24): 1268-1272. Dec. 13, 1930. 288.8 R136

890. Pickett, John E. Governor Young, here are the facts - we greatly need shipside cold storage. Pacific Rural Press 117(9): 272-273. Mar. 2, 1929. 6 P112
The need for terminal cold storage facilities for fruits in San Francisco is set forth.

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*See also under Agricultural Commodities - Fruits and Vegetables; Highway Transportation; Railway Transportation; Ocean Transportation

891. Refrigerator ships speeded up to handle Pacific Coast fruit. Business Week no. 79, p. 22. Mar. 11, 1931. 280.8 Sy8
The new shipside cold storage terminal at San Francisco is credited with the increase in shipments from that port.

892. Shipside refrigerator terminal adds to harbor facilities at San Francisco. Food Indus. 2(8): 345-347. August 1930. 389.8 F737
Text and illustrations describe the facilities of this terminal which is designed largely to afford refrigerated storage for fresh fruit.

Apples

893. Apple shipments by water. Better Fruit 18(8): 29, 47-48. February 1924. 80 B46
Describes the facilities for handling these shipments in the ports of Portland and Seattle.

894. Cornwell, John J. Railroads and the apple industry. Va. State Hort. Soc. Proc. (1931)36: 16-21. Staunton. 81 V81

895. Harding, Paul L., and Powell, Charles L. Transportation of apples from the Shenandoah-Cumberland section to overseas markets. U. S. Dept. Agr. Tech. Bull. 523, 26pp. Washington, D. C., August 1936. 1 Ag86Te
Literature cited, pp. 25-26.
"Refrigeration of apples during rail transit from Virginia to Jersey City, N. J., as compared with ventilation under the prevailing weather conditions in 1929 and 1930, reduced the temperature of the fruit in the top layers of the cars 5° to 16° F., and that in the bottom layers of the cars 22° to 36°. In 1931 refrigeration reduced fruit temperatures 9° to 14° in the top layers and 21° to 30° in the bottom layers of the cars.
Returns indicated that refrigeration was economically profitable.

896. Hauck, Charles W. Truck movement of Ohio apples. Ohio Agr. Expt. Sta. Bimonthly Bull. 13(2): 74-76. Wooster, March-April 1928.
"Two factors...appear to be mainly instrumental in determining the amount of fruit that is shipped by truck: (1) the quantity of apples produced in the section; and (2) the density of the population within trucking distance of the section. A third factor also, the quality of the fruit, since it has a very material bearing on the readiness with which sales may be made, may exert considerable influence on the amount sold locally..."

897. Hudson, H. L. Portland as a fruit shipping port. Better Fruit 19(2): 12, 19. August 1924. 80 B46
Portland is the leading apple shipping port on the Pacific Coast. Its terminal facilities are described.

898. International apple shippers' association. Official proceedings. 81 N21
The United States Department of Agriculture Library has 1st., 1895 to 1928.
Title varies.
Previous to 1903 name of association was National Apple Shippers' Association.
Each issue contains discussion on important transportation questions relating to the shipping of apples.

899. Larrabee, John. Apple freight rate $860 per acre. Shipped thirty-eight cars of apples in year and railroads got $24,300. Bur. Farmer (Wash. ed.) 7(10): 9-10. June 1932. 280.82 B89

900. Lloyd, John William, and Decker, S. W. Factors influencing the refrigeration of packages of apples. Ill. Agr. Expt. Sta. Bull. 410, pp. 15-50. Urbana, 1934.
Literature cited, p. 50.
Some of the factors studied were: effect of temperature of fruit at time of packing on rate of cooling; size of fruit; effect of type of container and effect of wrapping fruit. The effect of air velocity about a package or rate of cooling within was also studied.

901. New York State farm bureau federation. Federation opposes boosting apple freight rates. Bur. Farmer (N. Y. ed.) 7(11): 9, 11. July 1932. 280.82 B89

902. Parcel post marketing. Pract. Farming 116(23): 342, 347. Dec. 1, 1920. 6 P88
An experiment in marketing apples by parcel post in Kent County, Delaware.

903. Pitman, Frank H. The railroads and the apple shipper. Va. State Hort. Soc. Proc. (1935) 40: 148-154. Staunton. 81 V81

904. Powell, Charles Lincoln, and Aldrich, Winthrop Williams. A preliminary report on the transportation of apples from the Shenandoah-Cumberland region to Great Britain (investigations conducted during 1929-30) 14pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of plant industry [1931] 1.9 P772Pra
"This investigation was undertaken at the request of growers and shippers of the Shenandoah-Cumberland region to determine the most satisfactory methods of transporting their apples to British markets. It was also desired to ascertain to what extent handling and transportation methods are responsible for the unsatisfactory condition exhibited by occasional shipments upon arrival at overseas destination..."

905. Rose, Dean H., and Lutz, J. M. Bruising and freezing of apples in storage and transit. U. S. Dept. Agr. Tech. Bull. 370, 14pp. Washington, D. C., September 1933. 1 Ag84Te

A peculiar type of transit injury of apples is described. It is found most commonly at the bottom of loads of boxed apples in railroad cars. A similar type of injury is found in barrels and baskets of apples when considerable pressure has been used to force the head or the cover into place. The injury was produced at both freezing and nonfreezing temperatures. Corrugated-paper liners placed next to the sides in boxes of apples eliminated practically all of the bruising or transit injury.

906. Smith, Edwin. England likes apple shipments via canal. Better Fruit 20(2): 7-8. August 1925. 80 B46
This article describes the effect the arrival of a large shipment via the Panama Canal had upon the British market. Evidence, Mr. Smith says, favors shipment via canal rather than through the eastern seaboard.

907. Spencer, Leland. Cost of exporting apples. N. Y. (Cornell) Agr. Col. Dept. Agr. Econ. and Farm Mangt., Farm Econ. no. 64, p. 1260. Ithaca, 1930. 280.8 C812
A table shows average prices and costs on 25 carloads of apples exported to Great Britain 1928-29. Freight to New York and ocean freights are shown.

908. T., G. H. Marketing one hundred miles by motor. Rural New Yorker 79 (4584): 861. May 1, 1920. 6 R88
Trucking apples from Burlington County, New Jersey, to New York City.

909. Talbert, T. J., and Merrill, F. S. Picking, handling and shipping apples. Amer. Fruit Grower 46(9): 10. September 1926. 80 G85
Includes hints to shippers' and discusses billing of cars, diversion, and notification of shipments.

910. Talbert, T. J., and Merrill, F. S. Picking, packing and shipping apples. Mo. Agr. Expt. Sta. Circ. 147, 43pp. Columbia, 1926.
Loading and hauling records, shippers' hints, loading cars, apple packages, and bracing loaded cars are discussed on pp. 33-43.

911. Trautschold, Reginald. "Cleatboards" reduce handling costs. Traffic World 54(8): 310-311. Aug. 25, 1934. 288.8 T672
Describes the method of loading apples into ships in average unit-loads of 2,500 lbs., at Portland, Oreg., and Seattle, Wash.

912. Wilcox, Earley Vernon. Thousand-league boots. The up-and-doing methods of Northwestern apple growers win markets 3000 miles away. Country Gent. 86(9): 3, 28. Feb. 26, 1921. 6 C833
The reactions of the Northwestern Apple Growers when they had to face "a combination handicap of a heavy freight-rate increase, a 3000 mile haul, falling prices, uncertain markets, difficulty in obtaining credit, and a car shortage" are described.

Containers*

913. Apple carton favored instead of barrel. Better Fruit 20(5): 18. November 1925. 80 B46
"Fruit buyers in the New York market have been interested in the experiment made this year by the Red Hook Apple Growers' Association of Red Hook, N. Y., in packing apples in fiber board cartons..."

914. Biehn, E. S. The evolution of box packing. Amer. Fruit Grower 42(9): 3-4. September 1922. 80 G85
How box packing of apples developed.

915. Brush, M. W. Packing and selling apples in corrugated boxes. N. Y. State Hort. Soc. Proc. (1926)71: 196-201. LeRoy. 81 N484
Advantages of these containers are listed.

916. Burkholder, C. L. Drop faces. Hoosier Hort. 14(11): 163. November 1932. 81 In2H
How to avoid "drop faces" by proper packing of apples or peaches.

917. Burkholder, C. L. The peck and half-bushel basket for apples. Hoosier Hort. 14(5): 79-80. May 1932. 81 In2H
The cost of packages, packing, wholesale price and returns are shown for both peck and half-bushel baskets.

918. Campfield, W. S. The apple package - the basket - the Eastern box - or the Northwest box? Va. State Hort. Soc. Rept. (1938)43: 140-144. Staunton. 81 V81

919. Campfield, W. S. Virginia experiences in box packing and wrapping apples for foreign and domestic markets. Md. Agr. Soc. Rept. (1937)22: 182-191. College Park, 1938. 4.M366
Discusses briefly regulations for the marketing of apples, offering suggestions for improvements. Describes the "Eastern apple crate" and urges its adoption.

920. Castellini, William A. A. Shall we box Indiana apples? Hoosier Hort. 9(8): 115-123. August 1927. 81 In2H
Favors boxed apples if the proper container is used.

921. Corbett, Roger B., and Christopher, E. P. A study of apple containers. R. I. Agr. Expt. Sta. Bull. 227, 14pp. Kingston, January 1931.
"The increased production in New England of easily-bruised apples has brought the question of a suitable container forcibly to the front in recent years. The purpose of this study has been to show which of the commonly-used apple containers in southern New England is most desirable.

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*See also under General Transportation; Agricultural Commodities - Fruits and Vegetables, Fruits

Box packing of apples seems preferable to packing in baskets as far as bruising is concerned.

922. Cronquist, E. A development in apple packing. Hoosier Hort. 15(10): 155-156. October 1933. 81 In2H
Describes a cell type package designed to carry forty pounds of apples, with a separate cell for each apple.

923. Cummings, M. B. Small box of apples catches public's fancy. Amer. Fruit Grower 51(7): 4. July 1931. 80 G85
Farmers are finding that the consumer no longer wants barrels and bushel baskets of apples.

924. Cutler, Frank W. History of apple-box pack. Better Fruit 19(2): 16-17. August 1924. 80 B46
The development of the apple box, the use of wraps, and proper packing are discussed.

925. Fiske, George B. Marketing barreled apples. U. S. Dept. Agr. Bull. 1416, 99pp. Washington, D. C., 1926. 1 Ag84B
Recent Federal publications on the marketing, transportation and storage of barreled apples, p. 99.
Transportation, pp. 33-36.

926. Fiske, George B., and Pailthorp, Raymond R. Marketing western boxed apples. U. S. Dept. Agr. Bull. 1415, 95pp. Washington, D. C., 1926. 1 Ag84B
Recent Federal publications on the marketing, transportation, and storage of boxed apples, pp. 94-95.
Transportation, pp. 19-21.

927. George, Frank. Packing apples for export. Amer. Fruit Grower 41(10): 12, 19. October 1921. 80 G85
The packing of and packages for apples for export to avoid damage are discussed.

928. Glass, John T. Modern marketing of apples in bushel baskets. Amer. Fruit Grower 42(9): 7. September 1922. 80 G85
Describes the advantages of the bushel basket as a shipping container for apples.

929. Hauck, Charles W. Packing of Ohio apples in boxes. Ohio Agr. Expt. Sta. Bimonthly Bull. 14(141): 201-203. Wooster, November-December 1929.
The packing of apples in boxes, while customary in western apple growing sections, is only beginning in Ohio.
Comparative costs of packing in baskets and in boxes are included.

930. Hauck, Charles W. Packing Ohio apples in boxes. Ohio State Hort. Soc. Proc. (1929)62: 212-215. 81 Oh3
Statistics comparing returns from apples packed in boxes and those packed in baskets are shown. A considerable margin in favor of the box pack was found.

931. Hodson, Edgar A. Box packing apples for market. Ark. Agr. Col. Ext. Circ. 204, 16pp. Fayetteville, August 1925.
Rules of grading and methods of packing apples in boxes in Arkansas.

932. Holland, C. S. How one grower packed apples in bushel baskets. Natl. Stockman & Farmer 48(19): 458. Aug. 9, 1924. 6 N21
Sizing, packing, and facing are discussed.

933. Hughes, Andrew C. Description and demonstration in the use of the barrelette. Md. Agr. Soc. Rept. (1922)7: 198-200. College Park, Md., 1923. 4 M366
Discussion, pp. 199-200.
The barrelette, which was designed primarily for the marketing of fancy grades of apples, is described.

934. Jenks, Albert R. Apple packing for Massachusetts growers. Mass. Dept. Agr. Bull. 23, 21pp. Boston, 1921. 2 M38Dp
Reprinted from "Orchardingl", Massachusetts Agriculture Series, No. 2.
The author discusses market packages, sizers, barrel packing, apple box packing, and packing in bushel produce boxes.

935. Lewis, C. J., and Fish, O. L. Apple packs of the Northwest. Amer. Fruit Grower 40(8): 5-6, 22. August 1920. 80 G85
The standard box pack of apples is described.

936. McNiff, Owen A. Field box gaining favor; open container seems destined to become important factor in New England apple marketing. New England Homestead 106(21): 20. Oct. 14, 1933. Pam. Collect. (Containers).
The advantages of this container, which was introduced in Massachusetts in 1929 are listed.

937. Mason, Walter L. The evolution of box apple packing in the Northwest. Better Fruit 15(4): 6-7. October 1920. 80 B46
The necessity for greater economy in time and labor brought about the transformation of apple packing.

938. Nebraska. State board of agriculture. Is the trucker a blessing or a detriment in apple marketing? Nebr. State Bd. Agr. Ann. Rept. 1932: 569-573. Lincoln. 2 N27R
The evils of unregulated trucking are discussed.

939. Packing a box of apples - here's how. Better Fruit 21(2): 5-6, 17-18. August 1926. 80 B46
Different styles and counts of packs are described.

940. Pailthorp, Raymond R., and Kinsey, Frank S. Packing apples in boxes. U. S. Dept. Agr. Farmers' Bull. 1457, 22pp. Washington, D. C., 1925.

The bulletin discusses community packing houses; the construction of packing houses; their equipment and supplies; method of wrapping; apple packs; and determining the count.

941. Pailthorp, Raymond R., and Park, James William. Preparing apples for market in barrels and baskets. U. S. Dept. Agr. Farmers' Bull. 1695, 34pp. Washington, D. C., 1933. 1 Ag84F
This bulletin is a revision of and supersedes Farmers' Bulletin 1080, Preparation of Barrelled Apples for Market.
Harvesting, grading, packing, hauling, and loading in cars are discussed, with emphasis upon methods and equipment which have proved most satisfactory.

942. Pailthorp, Raymond R. Preparing the boxed apple for distribution. Better Fruit 16(5): 7-8. November 1921. 80 B46
The benefits and economies of community packing plants are set forth, also requirements to be taken into consideration in planning and building the packing house.

943. Pennsylvania. Department of agriculture. Rules and regulations for the packing of apples in Pennsylvania. Penn. Agr. Dept. Bull. v. 3, no. 18 (Gen. Bull. 349), 7pp. Harrisburg, June 1920. 2 P38B
This is Service and Regulatory Announcement no. 2.

944. Pickett, William F. The box pack for Kansas apples. Kans. State Hort. Soc. Bien. Rept. (1928-1929)40: 46-47. 1930. 81 K13
The box pack is advocated for Kansas apples. If properly handled, this pack causes less injury to fruit in transit than any other package in common use.

945. Potter, G. F., Rollins, H. A., and Latimer, L. P. Packing apples in the standard farm produce box. N. H. Univ. [Agr.] Ext. Circ. 64, 14pp. Durham, 1926.

946. Read, Frederick W. Apple packing and inspection regulations. Calif. Cult. 57(10): 234. Sept. 3, 1921. 6 C12
Discusses marking on packing boxes; freedom from dirt; russeting; etc. and gives a definition of "well-packed."

947. Schooley, Paul T., and Eldridge, J. E. Packing and storage of apples in PaSaCo packages. 21pp. South Bend, Ind., Package sales corporation, [1921] Pam. Collect. (Apples)
Loading into cars is discussed.

948. Shaffer, Bernice Eldon. Packing and loading basket apples. 4pp. Richmond, Va., Dept. of agriculture, Division of markets, 1928. Pam. Collect. (Apples)

949. Shubert, Guy. Selling extra fancy apples in paper cartons. Nebr. State Hort. Soc. Ann. Rept. 1927: 127-128. 81 N27

950. Spilman, Harold Addison. The value of the newer and smaller packages for marketing fruit. Md. State Hort. Soc. Proc. (1928)13: 191-199. 81 M36

951. Strong, Curtis. Making boxed apples safe for delivery. Better Fruit 16(3): 7, 19. September 1921. 80 B46
Sufficient care in nailing and strapping boxes will prevent damage.

952. Strong, W. E. Making boxed apples safe for delivery. Amer. Fruit Grower 41(9): 4. September 1921. 80 G85
The importance of proper nailing and strapping of boxes is stressed.

953. Technique of packing apples in standard box. Better Fruit 19(2): 9, 21-22. August 1924. 80 B46
"The apple packing pointers presented here are those given in 'Packing Fruit for Tomorrow's Market', by Frank W. and Asa B. Cutler..." Seven rules for the packer are summarized.

954. Tukey, H. B. Packing apples in the Boston box. Rural New Yorker 85 (4880): 5. Jan. 2, 1926. 6 R88
This is the "standard box for farm produce."

955. [Walton, W. H.] The entree of the basket into fancy appledom. Better Fruit 16(4): 5-6, 15, 18-19. October 1921. 80 B46
The baskets used and methods of packing them are described.

956. Young, W. E. Apple containers. Ohio State Hort. Soc. Proc. (1930)63: 203-205. 81 Oh3
Discusses the various containers used in Ohio and suggests packages for use in different types of shipments.

Avocados

957. Michelson, Hamilton. Shipping and marketing the avocado. Fla. State Hort. Soc. Proc. (1921)34: 89-91. DeLand. 81 F66
Packages used and methods of shipment are described.

Bananas

958. Handling the nation's supply of bananas. Illinois Central creates highly specialized transportation organization for this traffic. Railway Age 82(29): 1932-1934. June 18, 1927. 288.8 R136
"The Illinois Central handles approximately 28,000 cars of bananas out of New Orleans annually which is from 65 to 70 percent of the total movement of this fruit through that port..." How this is done efficiently and with a minimum of loss is described.

959. Reynolds, Philip Keep. The banana; its history, cultivation and place among staple foods. 181pp. Boston and New York, Houghton Mifflin co., 1927. 93.42 R33B
Ch. VI. Ocean transportation.
Bibliography, pp. 159-172.

960. [United fruit co.] The story of the banana. Pan Amer. Union Commodities of Com. Ser. no. 2, 47pp. Washington, D. C., 1936. 150.9 C732
Describes the loading of the banana cargo, the banana steamship, discharging the banana cargo, and shipping to interior points.

961. Wardlaw, Claude W., and McGuire, Lawrence P. The behaviour and diseases of the banana in storage and transport. Gt. Brit. Empire Marketing Bd. Pub. 36, 67pp. London, January 1931. 280.39 G792P
Bibliography, p. 67.
In addition to the study of the behaviour of several varieties of bananas in storage and transit, the report also contains several recommendations as to the shipping and storage of bananas calculated to reduce wastage in transit.

962. Wardlaw, Claude W., and McGuire, Lawrence P. Transport and storage of bananas with special reference to chilling. Gt. Brit. Empire Marketing Bd. Pub. 45, 40pp. London, 1931. 280.39 G792P

Berries

963. Barnett, R. J. Strawberry growing in Kansas. Kans. Agr. Expt. Sta. Circ. 116, 16pp. Manhattan, 1925.
Shipping and marketing the strawberry, pp. 15-16.

964. Brooks, A. N., Watson, J. R., and Mowry, Harold. Strawberries in Florida; culture, diseases, and insects. Fla. Agr. Expt. Sta. Bull. 204, pp. 481-523. Gainesville, 1929.
Shipping, pp. 496-498, includes discussion of caring for and loading the pony refrigerator, the efficiency of these refrigerators, and tests with pre-cooling strawberries.

965. Fisher, Durward Frederick, and Lutz, J. M. Handling and shipping strawberries without refrigeration. U. S. Dept. Agr. Circ. 515, 16pp. Washington, D. C., February 1939. 1 Ag84C no. 515
"Motortrucks are being relied upon more and more for the transportation of strawberries from producing districts to markets that can be reached within 24 to 36 hours by this means. The Bureau of Agricultural Economics estimated that in the years 1933 and 1934, 53 percent of all strawberry shipments in the United States moved by this method.
"Strawberries moved by truck are seldom refrigerated and often are exposed to very warm temperatures in transit. The use of pre-

cooling to control decay and maintain the fruit in good marketable condition during shipment in refrigerator cars...obviously does not apply to truck shipments.

"The purpose of the experiments here reported was to study harvesting, handling and packing methods, and other practices used with strawberries to determine how the loss in keeping quality, because of adverse temperatures in nonrefrigerated shipments, could be kept to the minimum." - Introduction.

966. Fraser, Samuel. The strawberry, containing practical directions for the propagation, culture, harvesting and marketing of strawberries for profit. 120pp. New York, Orange Judd publishing co., inc.; London, K. Paul, Trench, Trübner & co., ltd., 1926. 94.21 F86

Ch. X. Harvesting, shipping and marketing, pp. 87-99.

967. Loree, R. E.. Strawberry growing in Michigan. Mich. Agr. Expt. Sta. Spec. Bull. 182, 29pp. East Lansing, 1928.

Commercial shipping is discussed on pp. 3-5. A table shows daily receipts, by express, boat and motor truck and prices of Michigan strawberries in Chicago for the year 1927. Rates from Benton Harbor to Chicago by express, truck and boat are shown.

968. Lott, R. V. Small fruits; raspberries, blackberries, dewberries, loganberries, currants, and gooseberries. Colo. Agr. Col. Ext. Bull. 300-A, 69pp. Fort Collins, 1929.

Literature cited, p. 69.

A brief section is devoted to packages.

969. McNary, R. G. Shipping Clark seedless berries. Better Fruit 17(12): 12. June 1923. 80 B46

Methods of handling and packing, and shipping of these strawberries in the Hood River Valley are described.

970. Moving strawberries on time. How the St. Louis-San Francisco handles highly perishable movement without delays. Railway Age 85(15): 698-700. Oct. 13, 1928. 288.8 R136

Describes the handling of 2,402 cars of strawberries from southwestern Missouri and northwestern Arkansas over the St. Louis-San Francisco between May 16 and June 16 of 1928.

971. Spilman, Harold Addison. Strawberry containers and their regional uses. Only three sizes are legal but many styles have adherents. Variety of types portrayed which enjoy popularity. Barrel and Box 32(4): 13-14. June 1927. 99.82 B27

Cherries

972. Blodgett, E. C. The cherry industry in the Lewiston orchards with cultural recommendations. Idaho Agr. Expt. Sta. Bull. 171, 19pp. Moscow, 1930.

Harvesting, packing and shipping, pp. 18-19.

973. U. S. Tariff commission. Cherries sulphured or in brine. Report... differences in costs of production of cherries in their natural state, sulphured, or in brine in the United States and in the principal competing country, as ascertained pursuant to the provisions of section 315 of Title III of the tariff act of 1922. 54pp. Washington, U. S. Govt. print. off., 1928. 173 T17Ch

Transportation, pp. 21-23, includes transportation charges on imported cherries from plants in Italy to New York city; and transportation charges on domestic cherries from plants and on imported cherries from New York to the important consuming centers.

Citrus Fruits

974. Bennett, A. E. Water transportation for California citrus products. Calif. Cult. 57(25): 627, 630-631. Dec. 17, 1921. 6 C12

Describes the advantages which will accrue from a proposed steamship service for fruits and vegetables from California to New York. A substantial saving in transportation costs is expected.

975. Brooker, Marvin A. A study of the cost of transportation of Florida citrus fruits with comparative costs from other producing areas. Fla. Agr. Expt. Sta. Bull. 217, 128pp. Gainesville, June 1930.

Includes citrus fruit transportation costs from Florida points to the largest citrus markets in the United States, 1924 to 1927; Comparative freight rates on citrus fruits from all producing States to the 36 largest citrus markets in the United States during the period 1924 to 1927; Changes in the freight rate situation during 1928 and 1929; Freight rates per ton-mile on citrus fruits, 1930; History of freight rates on citrus fruits other than lemons from Florida and from California since 1900; Methods of shipping citrus fruits (icing, pre-cooling, and pre-icing); Carriers' and shippers protective services; Miscellaneous transportation charges; Water transportation costs from Florida; and The relation of farm prices of Florida oranges and grapefruit to the general price level and to freight rates, 1910-11 to 1928-29.

976. Case, Harold Clayton. Our wobbly rate structure. Fla. State Hort. Soc. Proc. (1936)49: 92-96. DeLand. 81 F66

Presents data to support these three facts: (1) "That the existing Florida citrus rail structure is unsuited to the present-day needs of the industry...(2) That the only material rail freight reductions thus far obtained have come as the direct result of industry development of competing methods of transportation, after appeals to the railroads had proven ineffective...(3) That the smart thing to do is for the railroads and citrus industry to quit fighting each other and use their combined energies for the advancement of their mutual interests..."

977. [Chase, Joshua C.] Joshua C. Chase of Florida on shipping lemons green. Calif. Citrogr. 18(7): 208. May 1933. 80 C125
Describes the packing and transportation of lemons, picked mature, but green, from Tulare County, California to Chicago, and their arrival in excellent condition.

978. Collins, Lester W. Factors in water transportation of citrus fruits from California. Preliminary report of investigations conducted by the Office of preservation of fruits and vegetables in transit and storage, 1921. 26pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of markets and crop estimates, 1921. 1.9 M3413F

979. Farrar, Walton T. "Save the West." Calif. Cult. 56(23): 735. June 4, 1921. 6 C12
Describes the hardships which the growers of citrus fruits face because of the Transportation Act of 1920 and its "excessive and prohibitive" freight rates.

980. Favor, E. H. Citrus rolls on rubber tires. Amer. Fruit Grower 41(6): 5-6. June 1921. 80 G85
Discusses the influence of the truck on citrus fruit growing in Florida.

981. Florida fruit gets lower rates. Fourth section relief granted for citrus fruits, but none allowed to Illinois Central on grain - Three dissenters. Railway Age 99(23): 755-758. Dec. 7, 1935. 288.8 R136
"The Interstate Commerce Commission, which recently has been showing greater liberality in many cases in granting fourth section relief to authorize railroads to meet truck and water competition without making corresponding reductions at non-competitive intermediate points, on November 21 issued an order authorizing the railroads to establish and maintain until July 31, 1936, rates on citrus fruits in carloads from points in Florida to New York, Philadelphia, Baltimore, Boston, and New England points without observing the long-and-short-haul provision..."

982. Hill, Robert George, and Hawkins, Lon A. Transportation of citrus fruit from Porto Rico. U. S. Dept. Agr. Bull. 1290, 19pp. Washington, D. C., 1924. 1 Ag84B
The investigations described in this bulletin were conducted in cooperation with a steamship company operating between New York and Puerto Rico with the purpose of determining the value of refrigeration on shipboard and of working out the best methods for loading and handling the fruit in refrigerated holds. The results showed the value of refrigeration of this type and its feasibility.

983. Hodges, R. E. Motor trucks save $8,000 per year. Pacific Rural Press 100(5): 144. July 31, 1920. 6 P112
Saving made by the Santiago Orange Growers Association when they changed from teams to motor trucks in 1913-14.

984. Loos, Karl D. The freight rate problem. Calif. Citrogr. 24(5): 158, 174-177. March 1939. 80 C125

Includes a brief review of the past history of citrus rates and says:

"Because the transportation charges are such a large part of the delivered price of citrus fruits, citrus growers in all producing areas have been engaged in an almost continuous struggle over their freight rates throughout the history of the industry. The present stage of that struggle is a particularly active one..."

985. Mann, Charles William, and Cooper, William C. Methods of refrigeration in transportation of lemons. Calif. Citrogr. 20(8): 236-237. June 1935. 80 C125

Tests were made under the various forms of refrigeration in use.

986. Mann, Charles William, and Cooper, William C. Refrigeration and ventilation in transportation of lemons. Calif. Citrogr. 19: 234, 257. July 1934. 80 C125

The results of test shipments are presented.

987. Mann, Charles William, and Cooper, William C. Refrigeration of oranges in transit from California. U. S. Dept. Agr. Tech. Bull. 505, 87pp. Washington, D. C., January 1936. 1 Ag84Te

Literature cited, pp. 86-87.

"Twenty-nine refrigeration tests were made during the years 1928-33, during which temperature and icing records were obtained on 189 carloads of California oranges in transit to Chicago and New York. The fruit in these cars was inspected for decay, pitting, and spotting at the time of unloading and in some cases was inspected again after being held in a wholesale market 1 to 3 weeks..."

988. Mann, Charles William. Refrigeration vs. ventilation of oranges in spring shipments. Calif. Citrogr. 20(4): 122, 149. March 1935. 80 C125

989. More than the traffic will bear. Calif. Cult. 56(12): 379. Mar. 19, 1921. 6 C12

Describes the increase in freight rates on citrus fruits which the railways with the consent of the Interstate Commerce Commission have made. They are said to be ruinous to the grower.

990. Pickett, John E. Citrus fights new type rate increase. Pacific Rural Press 136(120): 470. Nov. 12, 1938. 6 P112

"The California Citrus League, with the aid of Texas citrus growers, is making a valiant fight against the 'estimated weights' matter. If they lose the case discussed below all fruits and vegetables will have an additional freight rate increase which they cannot afford..."

991. Prompt handling reduces cost of transportation; Atlantic Coast Line develops fast schedules which eliminate delays on Florida citrus movement. Railway Age 85(8): 343-345. Aug. 25, 1928. 288.8 R136

The Atlantic Coast Line moves between 30,000 and 40,000 cars of citrus fruit out of Florida annually. An efficient system of train schedules insures the movement each night of every car of oranges or grapefruit loaded along the line during the day.

992. Robinson, J. Curtis. Freight rates. Fla. State Hort. Soc. Proc. (1924) 37: 42-45. DeLand. 81 F66
Describes the handicap under which the distributor of Florida citrus fruits must work because of high and fluctuating freight rates.

993. Robinson, J. Curtis. Traffic matters of importance to the citrus industry. Fla. State Hort. Soc. Proc. (1932)45: 88-92. DeLand. 81 F66
Discusses truck and water movement, blanket rates and increased distribution, and reduced rates for export grapefruit expected.

994. Sandlin, A. R. Problems of shipping citrus fruits. Fla. State Hort. Soc. Proc. (1921)34: 173-176. DeLand. 81 F66
Problems of packing, loading and obtaining of adequate refrigerator cars are discussed.

995. Spurlock, A. H., and Brooker, Marvin A. Florida citrus prices, II. Fla. Agr. Expt. Sta. Bull. 317, 31pp. Gainesville, November 1937.
Routes of shipment and methods and costs of preservation are studied. Costs of marketing including freight rates are listed from Florida to New York, Chicago, Detroit, Cincinnati, and Pittsburgh (rail shipments); rail and water shipments to New York; and motor truck and water shipments to New York.

996. Stevens, H. B. Successful and economical methods of loading citrus fruits. Fla. State Hort. Soc. Proc. (1927)40: 104-105. DeLand. 81 F66
Advocates placing of boxes in seven rows instead of six as customary. This will eliminate shifting and consequent breakage.

997. Strouse, Louis A., and Loos, Karl D. Changes in refrigeration service for citrus fruits. Calif. Citrogr. 18(10): 268, 280. August 1933. 80 C125
New refrigeration service for California fruits consists of the furnishing of pre-iced car and the replenishing of the ice at the first icing station, instead of the single carrier icing previously permitted.

998. Vaile, Roland. Some effects of certain agricultural products of uniform percentage increases in freight rates. Quart. Jour. Econ. 36(4): 718-727. August 1922. 280.8 Q2
This is largely a discussion of the effects of uniform percentage increases on California citrus fruits. Mr. Vaile says that if uniform freight rate changes are intended to maintain the existing equilibrium between commodities and localities then the uniformity must be proportioned to the relative part which freight charges play in total supply costs.

999. Water transportation of citrus fruits. Calif. Citrogr. 6(8): 286-287. June 1921. 80 C125

Figs

1000. Harris, Jack. Best methods for shipping fresh figs. Fig & Olive Jour. 6(8): 6. February 1922. 80 F46
Mr. Harris has found that refrigerated express service is the most satisfactory method of shipping fresh figs.

Grapes

1001. The California grape car plan. Car shortage prevented, congestion reduced, and marketing conditions improved. Railway Age 81(20): 933-936. Nov. 13, 1926. 288.8 R136
Some of the essential features of the plan are: Reasonable notice of approximate weekly car requirements of individual shippers to serve as a measure of car supply and distribution and at the same time afford a guide to the industry in promoting an orderly marketing of its products; a guarantee of freight charges by the furnishing of bonds executed by a surety or guarantee company; and establishment of an enlarged market information service.
The plan was formulated by the Pacific Coast Transportation Advisory Board and the Car Service Division of the American Railway Association.

1002. I.C.C. examiner approves grape car plan with changes. Railway Age 83(1): 21-22. July 2, 1927. 288.8 R136
The Examiner's recommendations are discussed.

1003. Jacob, Harry Ernest, and Herman, J. R. Harvesting and packing grapes in California. Calif. Agr. Expt. Sta. Bull. 390, 44pp. Berkeley, June 1925.
Packing methods and types of containers used are described in detail. Shipping, pp. 36-41, describes the loading and bracing of cars, refrigeration in transit, pre-cooling before shipment, and use of salt with ice in refrigerator cars.

1004. Killingsworth, W. S. Shippers will demand better freight service. Pacific Rural Press 101(21): 722. May 21, 1921. 6 P112
Shippers are advised not to delay their demand for refrigerator car service. It is said that grapes suffer most from car shortage.

1005. Lurkins, H. J. How shall we reach the grape consumer - by truck or car? Mich. State Hort. Soc. Ann. Rept. (1929)59: 57-62. Lansing. 81 M58
Mr. Lurkins is in favor of truck transportation of grapes.

1006. Pentzer, Wilbur Tibbills, and Asbury, C. E. Preliminary report on transportation and storage of California table grapes. Calif. Grower 2(1): 12, 34, 35. January 1930. 95.8 C122

This is a preliminary report on investigations begun during 1929 by the United States Department of Agriculture.

1007. Whaley-Eaton service. Cooperation between railroads and agriculture. Whaley-Eaton Pam. v. 2, no. 17, 32pp. Washington, D. C., June 10, 1927. Pam. Collect. (Whaley-Eaton service)
Discusses such cooperation especially as it affects the grape industry of California. The "Grape Car Plan" as put into effect in 1926 is described.

1008. Whitney, D. J. Shipping table grapes. Calif. Cult. 63(24): 571. Dec. 13, 1924. 6 Cl2
Describes the disadvantages of crates and the merits of lugs; and sets forth the advantages of the field pack as against the house pack.

Melons

1009. Burmeister, Gustave, and Hultgren, Thor. Relationships among watermelon prices, freight rates, production, and marketings. 33pp., processed. Washington, D. C., U. S. Department of agriculture, Bureau of agricultural economics, December 1936. 1.9 Ec752Rw
Graphs and charts are included.
Discussion is included of rates as an element of marketing costs; the increased use of other than railroad transportation; and the high rates on watermelons in relation to their value.

1010. Car conditioning vital factor in melon handling. The Southern Pacific organizes for intensive Imperial Valley movements - Pacific fruit express repairs and furnishes cars, also icing facilities. Railway Age 86(25): 1404-1410. June 22, 1929. 288.8 R136
"In one of the outstanding achievements in the western transportation field, the Southern Pacific annually handles over 18,000 carloads of melons, augmented by heavy shipments of lettuce and other agricultural products, in a period of 10 weeks, out of the Imperial Valley, Southern California. The keynote of the successful movement of these highly perishable commodities in such a short period of time is the careful advance preparation and organization on the part of the railroad, supplemented by the effective efforts of the Pacific Fruit Express Company in providing sufficient refrigerator cars, thoroughly inspected, repaired and conditioned in advance, and in maintaining efficient organizations and adequate icing facilities."

1011. Gilbert, W. W., and Meier, Fred Campbell. Chemical injury to watermelons in transit. U. S. Dept. Agr. Circ. 74, 9pp. Washington, D. C., 1929. 1 Ag84C
"This circular presents the results of stationary experiments and actual shipping tests with watermelons to determine whether certain chemicals including fertilizer materials left as residues on the

walls and floors of box freight cars can cause injury to melons, and if so, the character of such injury and the conditions under which it may occur...

"Of the 10 chemicals used, the following are capable of producing injury under certain conditions: Common salt, nitrate of soda, sulphate of ammonia, sulphate of potash, muriate of potash, superphosphate, a mixed fertilizer, and a watermelon fertilizer..." - Summary.

1012. Handling cantaloupes. Railway Age 79(16): 723. Oct. 17, 1925. 288.8 R136

Describes the care taken by the railroads in handling the crop of 14,500 cars of cantaloupes from the Imperial Valley in 1925.

1013. McKay, Andrew William, Fischer, George Lincoln, and Nelson, Arthur E. The handling and transportation of cantaloupes. U. S. Dept. Agr. Farmers' Bull. 1145, 23pp. Washington, D. C., 1921. 1 Ag84F

Cantaloupes for long-distance shipment should be picked just before the full-slip stage of maturity, and loaded as soon as possible into iced refrigerator cars. Wrapping of cantaloupes is not advised. Packages should be uniform. Floor racks are an aid in the refrigeration of cantaloupe shipments.

1014. Melon distributors' association. Proceedings. [n.p.] 280.39 M49

The Library of the U. S. Department of agriculture has 3d., 1917-24th., 1938.

Partial contents: 7th., 1921: Loss and damage freight claim prevention, by F. E. Winburn, pp. 37-40; Claims, by G. S. Gaillard, pp. 40-41.

8th., 1922: Transportation problems from carriers' viewpoint, by W. C. Ragin, pp. 39-42; Relationship of carriers to the Melon Distributors' Association, by C. E. Muller, pp. 54-56.

9th., 1923: Watermelon handling from a claim agent's viewpoint, by W. C. Moore, pp. 37-42.

10th., 1924: Cooperation of the railroads, by W. E. Stewart, pp. 46-50; Transportation and distribution - Some of the joint account problems, by H. G. Hightower, pp. 50-57; Careful handling and loading - most profitable for grower, by Robert Taylor, pp. 58-61.

11th., 1925: Preventing losses in shipping melons, by O. C. Boyd, pp. 26-29; Some of the problems of claim litigation, by H. G. Hightower, pp. 45-52; Elimination of claims on watermelons in transit, by W. O. Wall, pp. 69-72.

12th., 1926: Claim prevention, by W. O. Wall, pp. 37-39; What the Central of Georgia is doing for the watermelon industry, by William F. Turner, pp. 42-46.

13th., 1927: Melon bedding, by M. G. Hoffman, pp. 38-40; Claim prevention, by H. T. Lively, pp. 40-42; Transportation's service to business, by H. C. White, pp. 47-50; Watermelons and the Louisville & Nashville Railroad, by E. J. Hoddy, pp. 50-55.

14th., 1928: Diversions in transit, their importance to the fruit and vegetable industry - correct method of handling, by R. M. Martin,

pp. 38-44; Refrigeration in shipping melons, by James L. Leonard, pp. 64-67.

15th., 1929: Modern transportation service railway, by William E. Stewart, pp. 49-51.

16th., 1930: Railroads' cooperation with the melon growers and distributors, by H. C. White, pp. 31-35.

17th., 1931: Prevention of claims on watermelons, by W. O. Wall, pp. 23-28.

18th., 1932: Safe transportation of watermelons, by H. T. Lively, pp. 20-22; The effect of motor transportation upon the produce merchant, pp. 30-34; Advantages of loading watermelons in standard refrigerator cars instead of stock cars, by S. H. DeFoe, pp. 34-36.

19th., 1933: Watermelons and transportation, by W. Haywood, pp. 26-29.

22d., 1936: Prevention of damage to watermelons while in transit, by H. T. Lively, pp. 17-19.

23d., 1937: Railway transportation in 1937, by J. D. McCartney, pp. 4-6.

24th., 1938: Transportation problems in the distribution of watermelons, by W. H. Henderson, pp. 12-17; Prospective car supply for watermelons in 1938, by W. C. Kendall, pp. 22-24.

1015. Perishables require specialized operations. Southern Pacific has built up efficient organization in the Imperial Valley. Railway Age 87(22): 1270-1272. Nov. 30, 1929. 288.8 R136

During the last shipping season, which ended late in August, the Southern Pacific hauled 19,931 cars of cantaloupes from the Imperial Valley...This year, for the first time, the shippers had in effect an arrangement to control the loading, in order to avoid glutting the eastern markets and breaking the price.

1016. Weishaar, L. J. Testing the carrying quality of California cantaloupes. Calif. Dept. Agr. Monthly Bull. 10(8): 314-316. Sacramento, August 1921. 2 C12M

An experimental shipment of cantaloupes was made by the Pacific Fruit Express Company of San Francisco from the Imperial Valley to New York. The test showed that there was practically no advance in maturity while in transit. Mature, hard, well-netted melons gave the results.

The trip made by Mr. Weishaar is also described in Calif. Cult. 57(4): 75. July 23, 1921 under title, "Observing Cantaloupes in Transit."

Peaches

1017. Colp, L. N. The truck and the relation of this method of distribution to Illinois horticultural products. Ill. State Hort. Soc. Trans. (1931)65: 200-202. Springfield. 81 I16

This is largely a discussion of peach shipments by truck.

1018. Lloyd, John William. Directions for grading and packing Illinois peaches. Ill. Agr. Expt. Sta. Circ. 343, 8pp. Urbana, 1929.
"This is a revision of Circular 310, bearing the same title, published in June, 1926."
The bushel basket is the standard package for Illinois peaches. Three ways of packing the bushel basket - the jumble pack, the ring pack, and the ring-face pack, are described.

1019. Lloyd, John William, and Decker, Samuel Wesley. Factors influencing the refrigeration of packages of peaches. Ill. Agr. Expt. Sta. Bull. 418, pp. 439-464. Urbana, October 1935.
Literature cited, p. 464.
"The losses sustained in transit are at present very large. The average annual loss reported for 1922 to 1928 for officially inspected carloads of peaches, which made up approximately 3 percent of the peaches arriving at the large terminal markets, was $200,000. Between 5 and 10 percent of the peaches received in New York in 1924 and 1925 reached the market in poor condition and sold at an average discount of 15 percent. Precooling is generally recognized as a means of greatly reducing such losses..."

1020. Packing fancy Northwest peaches. Better Fruit 16(2): 11. August 1921. 80 B46
Text and diagrams show methods of packing.

Pears

1021. Allen, Frank Wisdom. Maturity standards for harvesting Bartlett pears for eastern shipment. Calif. Agr. Expt. Sta. Bull. 470, 27pp. Berkeley, 1929.
"After several years investigations by the Division of Pomology, University of California, it is believed that sufficient information has been collected on the different types of Bartlett pears produced, and on their manner of ripening in the different districts, so that practical methods of determining maturity can be offered. The two tests of color and firmness, herein described, form the basis of the maturity standards recently adopted as a part of the California Fruit, Nut, and Vegetable Act. After a brief discussion of some of the experimental work, suggestions are given for making these tests."

1022. Gerhardt, Fisk, and Ezell, Boyce D. Effect of carbon dioxide storage on Bartlett pears under simulated transit conditions. U. S. Dept. Agr. Jour. Agr. Research 56(2): 121-136. Washington, D. C., Jan. 1, 1938. 1 Ag84J
Literature cited, pp. 134-136.
"The recommendation is made that whenever freshly harvested Bartlett pears are to be held at transit or storage temperatures materially higher than 30° to 32° F, and curtailment of ripening process is desirable, carbon dioxide in a concentration of approximately 20 percent should be added to the storage air..." - Summary.

1023. Hartman, Henry, Magness, John Robert, Reimer, Frank Charles, and Haller, M. H. Investigations on the harvesting and handling of Bosc pears from the Rogue River Valley. Oreg. Agr. Expt. Sta. Bull. 228, 30pp. Corvallis, July 1927.
Literature cited, p. 30.
This is a joint publication with the Bureau of Plant Industry, U. S. Department of Agriculture.
Part II, Transportation and Storage Following Eastern Shipment, shows the effect of delay in shipment on storage and dessert quality of Bosc pears.

1024. Iceless, stoveless car carries pears. Better Fruit 24(10): 14. April 1930. 80 B46
The car is called a Silica Gel or Srix car and the temperature is governed automatically by a thermostat. The pears were shipped from Yakima to New York in March and reached New York in perfect condition.

1025. Magness, John Robert. The handling, shipping, and cold storage of Bartlett pears in the Pacific Coast States. U. S. Dept. Agr. Bull. 1072, 16pp. Washington, D. C., 1922. 1 Ag84B
Includes discussion of handling fruit for shipment in a fresh state (time of picking; relation of carrying quality to the climatic conditions under which grown); and precooling for shipment.

1026. Magness, John Robert, Diehl, H. C., and Allen, Frank Wisdom. Investigations on the handling of Bartlett pears from the Pacific Coast districts. U. S. Dept. Agr. Tech. Bull. 140, 27pp. Washington, D. C., September 1929. 1 Ag84Te
Literature cited, pp. 26-27.
The purpose of these investigations was to determine the earliest stage at which Bartlett pears may be picked and still ripen with satisfactory quality; the condition of fruit which when picked develops the best quality, and the latest stage at which fruit may be harvested and still retain satisfactory quality. A study was also made of the influence of storage temperatures upon the rate of ripening, especially on the effect of temperatures similar to those which prevail in the tops and in the bottoms of loads of fruit in refrigerator cars while in transit. Studies were made with fruit from California and the Wenatchee district of Washington.

1027. Mallison, E. D., and Powell, Charles Lincoln. Heavier loading of precooled cars. Wash. State Hort. Assoc. Proc. (1929)25: 14-15. 81 W273
The paper relates to the loading of precooled pears.

1028. Mallison, E. D., and Powell, Charles Lincoln. Refrigerated transportation of Bartlett pears from the Pacific Northwest. U. S. Dept. Agr. Tech. Bull. 434, 29pp. Washington, D. C., October 1934. 1 Ag84Te
"The investigation reported in this bulletin deals largely with the factors affecting the cost of transporting precooled Bartlett pears and the effectiveness of different methods of refrigerating the fruit in transit.

1029. Rose, Dean Humboldt, and Lutz, J. M. Injury to pears caused by paper liners impregnated with sodium silicate. U. S. Dept. Agr. Jour. Agr. Research 47(3): 153-162. Washington, D. C., Aug. 1, 1933. 1 Ag84J

Describes a brown discoloration of russeted varieties of pears found in shipments using sodium silicate in corrugated paper liners and in excelsior-filled pads.

Plums

1030. Allen, Frank Wisdom, Magness, John Robert, and Haller, M. H. The relation of maturity of California plums to shipping and dessert quality. Calif. Agr. Expt. Sta. Bull. 428, 41pp. Berkeley, 1927.

Investigations conducted in cooperation with the Bureau of Plant Industry, United States Department of Agriculture.

"This investigation...was undertaken to determine as accurately as possible under existing transportation conditions when the leading plum varieties should be harvested."

Prunes

1031. Arnett, H. J. Idaho prunes and the American railway association. Idaho State Hort. Assoc. Proc. (1927)32: 20-21. 81 Id12

1032. Hartman, Henry. Studies relating to the harvesting of Italian prunes for canning and fresh fruit shipment. Oreg. Agr. Expt. Sta. Circ. 75, 24pp. Corvallis, 1926.

Literature cited, p. 24.

A comprehensive time-of-picking test was conducted in several Oregon orchards. After picking, the fruit was placed in storage at 45° Fahrenheit, a temperature comparable, in the main, to that of the refrigerator cars in which fresh prunes are shipped. The fruit was held at this temperature for 12 days, the average length of time it takes for a car to reach the eastern markets, and at the end of the 12 days it was removed to a temperature of 66° Fahrenheit and allowed to ripen. Results noted are described in detail.

1033. Olds, Robert E. The half-bushel basket as a prune container. Idaho State Hort. Assoc. Proc. (1929)34: 58-62. 81 Id12

Vegetables

General

1034. Barnhill, O. H. California vegetable containers. Market Growers Jour. 41(4): 670-671, 687. Aug. 15, 1927. 6 M34

1035. Demanding justice in freight rates. Calif. Cult. 57(4): 91. July 23, 1921. 6 C12

"Urgent and persistent appeals for relief from the oppressive and prohibitive freight rates on California vegetables continue unabated from all vegetable growing sections of the state..."

As a result of these rates the marketing territory has been so restricted that returns commensurate with the cost of production are not secured.

1036. Edwards, Bryan. Shipping vegetables in mixed cars. Market Growers Jour. 48(7): 264-267. April 1, 1931. 6 M34

Suggested rules for shipping mixed cars are included.

1037. Ensign, M. R. Heavy costs in shipping useless tops; trimming before or after pulling is tested. Market Growers Jour. 54(11): 216. June 1, 1934. 6 M34

"The cost of handling, packing, refrigerating and transporting the large bulky tops of celery, carrots and beets is an enormous waste, since the retail grocer usually cuts them off when he wraps them up for the customer.

1038. Killingsworth, W. S. Food production stifled by railroad rates. Pacific Rural Press 101(17): 607. Apr. 23, 1921. 6 P112

Data compiled on lettuce shipments from the Imperial Valley are included. Rates, it is said, are more than the invoice price on some vegetables.

1039. Killingsworth, W. S. Reduce freight rates or shipments will cease. Pacific Rural Press 101(15): 346. Apr. 9, 1921. 6 P112

Describes the effect of high rates on vegetable shipments. Believes shipment via Panama Canal to be the remedy.

1040. Law, F. H. What the railroads are doing. Ill. State Hort. Soc. Trans. (1932)66: 249-257. Springfield. 81 I16

Railroads in relation to the vegetable growing industry are discussed in this article.

1041. Mallison, E. D., and Pentzer, Wilbur Tibbils. Body icing in transit refrigeration of vegetables. U. S. Dept. Agr. Tech. Bull. 627, 42pp. Washington, D. C., 1938. 1 Ag84Te

"At the instance of both shippers and carriers, a cooperative investigation by the Department of Agriculture and the Interstate Commerce Commission was undertaken in 1924 to determine (1), whether produce commonly shipped under body icing can be transported to market in good condition without body icing, or whether some form of body icing is necessary; (2), the effect of the water from melting body ice on the car; and (3), how damage to cars, if found resulting from body icing, can be prevented economically and effectively. No attempt was made to determine the value of body icing for all the commodities with which it is employed, the tests being limited to

the more important ones. The work reported in this bulletin is confined to that on lettuce, cauliflower, and green corn."

1042. National standards for vegetable packages. Congress passes new law on hampers, stave baskets, and splint baskets. Market Growers' Jour. 43(4): 565-567. Aug. 15, 1928. 6 M34
Provisions of the Act (Public no. 462 - 70th Congress) are given.

1043. A new crate of merit. Market Growers' Jour. 51(13): 296. July 1, 1932. 6 M34
Describes the "Fowler Four Star Crate" for vegetables.

1044. New refrigerator container for vegetables being tested. Market Growers' Jour. 64(5): 128. Mar. 1, 1939. 6 M34
This container was tried out in express shipments of vegetables.

1045. Package law passed in New York. Other activities of State convention [New York State Vegetable Growers Association] Market Growers' Jour. 38(9): 467-468. May 1, 1926. 6 M34
This law, known as the Tellier Bill, established standard containers for celery and lettuce.

1046. Paper for profits. Wraps and liners play increasing part in good marketing. Market Growers' Jour. 55(10): 367. Nov. 15, 1934. 6 M34
Describes the part that paper plays in the long distance movement of vegetables.

1047. Paulson, W. E. Freight rates and minimum weight requirements as factors in mixed carload shipments of vegetables from the Lower Rio Grande Valley. Jour. Farm Econ. 17(3): 459-468. August 1935. 280.8 J822
Under the rules as to rates, adopted in 1928 for the Southwest Territory and in 1930 for the rest of the United States, each vegetable in a mixed carload takes its own straight carload lot rate. As to minimum rates, no uniformity obtains at present as between different destinations. The author favors the adoption of the 25 per cent rule - "the minimum weight being established by the vegetable or group, in the mixture having the higher, or highest, minimum, provided such vegetable, or group, constitute 25 per cent, or more of the total weight."

1048. Reed, Earl. The place of railroads in the transportation of vegetables. Vegetable Growers' Assoc. Amer., Inc. Rept. (1935)27: 32-52. 81 V52
Includes discussion of loss and damage payments; rates and services on vegetables; refrigerator service; heater service; terminal costs of railroad facilities; railroad legislation which will increase costs of operation...; hidden trucking costs; and how to reduce costs of railroad transportation to vegetable growers and all others.

1049. Shipping dates for vegetables. Market Growers Jour. 41(5): 702-705. Sept. 1, 1927. 6 M34

1050. Top-icing refrigerator cars with snow ice. Railway Age 99(9): 277. Aug. 31, 1935. 288.8 R136

"For years it has been the custom to use block ice for re-icing shipments of certain vegetables, a process that often resulted in the breakage of a considerable number of the crates. Finally the idea was conceived of using motor-driven machines, mounted on light trucks for movement to car doors, that pulverized blocks of ice and blew the particles into the car through a hose.

"The top-icing of refrigerator cars loaded with green vegetables by using snow ice provides moisture and refrigeration to insure arrival of the produce in an attractive condition, thereby commanding the highest market prices. It is suitable for use with all such green vegetables as cabbage, celery, corn, lettuce, peas, beans, spinach, beets, carrots, cauliflower, broccoli, endive and parsley."

1051. U. S. Department of agriculture, Bureau of agricultural economics. Carlot shipments and imports of winter vegetables, 1931-32 to 1936-37. U. S. Dept. Agr., Bur. Agr. Econ. Statis. and Hist. Research F.S. 70, Sup., 36pp., processed. Washington, D. C., September 1937. 1.9 Ec752 no. 70 Sup.

A supplement to FS-70, The Florida Winter-Vegetable Industry and the Trade Agreement with Cuba.

1052. Waid, C. W. Motor truck transportation in marketing vegetables. Market Growers Jour. 42(5): 196-198, 200. Mar. 1, 1928. 6 M34

Describes the transportation of potatoes by truck in Michigan; and long-distance haulage of vegetables.

1053. Waid, C. W. Rail and motor movement of vegetables. Market Growers Jour. 45(3): 493. Aug. 1, 1929. 6 M34

Mr. Waid says that the quantity of fruits and vegetables being transported to market by motor trucks is on the increase. Figures show carloads moved and amount moved by truck.

1054. Weaver, B. L. Standard packages for vegetables. Ill. State Hort. Soc. Trans. (1928) 62: 359-366. Springfield. 81 I16

1055. Work, Paul. Paper in vegetable marketing. Growers and shippers, country wide, use many kinds of sheets to conserve quality. Market Growers Jour. 58(9): 215, 218-219. May 1, 1936. 6 M34

1056. Worth of trucks is proven. Market Growers Jour. 30(2): 48-49. Jan. 15, 1922. 6 M34

The value of trucks in transporting commercial vegetables to market is discussed.

Asparagus

1057. Pentzer, Wilbur Tibbils, Perry, Russell Lawrence, Hanna, Gordie Consyntine, Wiant, James Stuart, and Asbury, Clyde Eugene. Precooling and shipping California asparagus. Calif. Agr. Expt. Sta. Bull. 600, 45pp. Berkeley, April 1936.

This investigation was conducted in cooperation with the U. S. Department of Agriculture, Bureau of Plant Industry.

"Precooling and shipping tests were made during the latter part of the 1933 and 1934 seasons, when high field and transit temperatures were to be expected. Records were obtained on (1) precooling of asparagus by means of portable or semiportable car precoolers; (2) precooling during the packing process in tanks of ice water; (3) temperatures in transit after precooling by various methods; (4) condition on arrival as affected by the amount of green in the spear; (5) field handling, and method of packing and shipping; and (6) respiration at transit and storage temperatures."

Cabbage

1058. Prince, H. F. The long and short of a cabbage car. Market Growers Jour. 48(3): 110. Feb. 1, 1931. 6 M34

"The long and short of it is that a long, square-ended container should never be loaded the short way (crosswise) of a car, for if that is done, it is just too bad for the produce..."

Cauliflower

1059. Jones, Henry Albert, and Ernst, F. H. Cauliflower production in California. Calif. Agr. Col. Ext. Circ. 11, 36pp. Berkeley, 1927.

Loading of cars is described on pp. 26-27.

Celery

1060. Ensign, M. R. Marketing celery with trimmed tops; a preliminary report. Package Research Lab. Prog. Rept. 58, 12pp. [Rockaway, N. J., 1934] Pam. Collect. (Celery)

"It is the purpose of this report to give the results of the first shipments of celery packed with an alternate-reverse arrangement in the new Howard celery crate..."

1061. Hill, Robert George, Graham, W. S., and Wright, Robert Claude. The efficiency of a short-type refrigerator car. U. S. Dept. Agr. Bull. 1353, 27pp. Washington, D. C., August 1925. 1 Ag84B

A car about 3 feet shorter than the standard specification recommended by the U. S. Railroad Administration has been supplied to shippers.

Tests showed that the car would effectively refrigerate a load of 294 or 315 crates of celery.

Cucumbers

1062. Beattie, William Renwick. Cucumber growing. U. S. Dept. Agr. Farmers' Bull. 1563, 22pp. Washington, D. C., 1928. rev. 1936. 1 Ag84F

Loading and shipping, pp. 21-22.

Escarole

1063. Prince, H. F. Bad shipping costs money. Market Growers Jour. 47(1): 450. July 1, 1930. 6 M34
Describes the condition of a car of southern escarole when it reached its destination. The shipper had used the wrong container, had followed the wrong shipping instructions, and the car was not unloaded promptly.

Lettuce

1064. Kieffer, Donald L. Lettuce freight - bear it and groan. Pacific Rural Press 111(18): 565. May 1, 1926. 6 P112
Protests against increases in rates on lettuce.

Onions

1065. Erwin, A. T., and Harter, W. L. The onion industry in Pleasant Valley, Iowa. Ia. Agr. Expt. Sta. Bull. 225, pp. 259-286. Ames, 1925.
Transportation, pp. 278-279.

1066. Taubenhaus, J. J., and Ezekiel, Walter N. Alkali scorch of Bermuda onions. Amer. Jour. Bot. 21(2): 69-71. February 1934. 450 Am36
Alkali scorch is a shipping and storage injury which has caused losses of Texas-grown white Bermuda onions. The injury results from heavy impregnation of alkaline materials in the jute bags used for storage and shipments.

1067. U. S. Tariff commission. Onions. Report...to the President of the United States. Differences in costs of production of onions in the United States and in the principal competing country, as ascertained pursuant to the provisions of section 315 of Title III of the Tariff act of 1922. With Appendix. Proclamation by the President. 83pp. Washington, U. S. Govt. print. off., 1929. 173 T170n
Transportation costs on domestic and on imported onions are discussed on pp. 54-57. A table shows standard all-rail carload freight rates from leading domestic shipping points to the principal central markets.

Potatoes

1068. Alaskan potatoes arrive in New York on schedule time. Market Growers Jour. 61(11): 492. Dec. 1, 1937. 6 M34

1069. Bakken, Henry Harrison. Consumer preferences for potatoes. Wis. Agr. Expt. Sta. Research Bull. 124, 40pp. Madison, 1934.
Part III. Motor truck transportation.

1070. Butler, O. A useful potato crate. N. H. Univ. Agr. Ext. Serv. Press Bull. 158, 1p. Durham, 1929.

1071. Connecticut. Department of agriculture, Bureau of markets. Facts concerning proposed reductions in freight rates on Maine potatoes. 1p. [Hartford] 1934. Pam. Collect. (Connecticut)
Rail and water and all rail rates are given, and the proposed rate by rail and water is included.

1072. Findlen, P. J. An economic study of the marketing of Western New York potatoes by motor truck. N. Y. (Cornell) Agr. Expt. Sta. Bull. 700, 52pp. Ithaca, June 1938.
"The purpose of this study was to determine the extent to which potatoes were marketed by motor truck in western New York; to ascertain costs of marketing and net returns to growers according to different methods of marketing; and to learn what advantages and efficiencies there were in the use of the motor truck in the marketing of western New York potatoes."

1073. Findlen, P. J. Methods of transporting western New York potatoes. N. Y. (Cornell) Agr. Col. Dept. Agr. Econ. and Farm Mangt. Farm Econ. No. 101, pp. 2487-2488. Ithaca, May 1937. 280.8 C812
"Data from 569 farms in five areas of Western New York for the 1932-33 season indicate that more than nine-tenths of the potatoes sold moved from the farm by motor trucks, while only 6 per cent were handled by team; and one per cent, in growers' automobiles. The truck was used most extensively in Monroe and Genesee counties where the potato production areas were relatively near city markets. Teams continued to haul slightly less than one-tenth of the potatoes marketed in Steuben, Allegheny, and Wyoming Counties."

1074. Grimes, Arthur Middleton. Handling and loading southern new potatoes. U. S. Dept. Agr. Farmers' Bull. 1050, 13pp. Washington, D. C., Issued May 1, 1919; rev. January 1927. 1 Ag84F
Proper methods of loading cars with barrels, sacks, hampers, and crates are described.

1075. Johnson, C. E. Motor trucks and potato farming. Potato Mag. 3(12): 18. June 1921. 75.8 P84
Savings in transporting potatoes from farm to market by motor truck are discussed.

1076. Kimbrough, William Duke. A study of respiration in potatoes with special reference to storage and transportation. Md. Agr. Expt. Sta. Bull. 276, pp. 51-72. College Park, 1925.
Literature cited, p. 72.
Special attention must be given to ventilation of potatoes in bulk when they are removed from cold storage for transit. Otherwise they are susceptible to decay.

1077. Lynn, William C. Size of potato sacks in general use. 9pp. [Trenton, N. J., N. J. Dept. of agriculture, Bureau of markets, 1931] 280.3 N46

1078. Park, James William. Marketing the commercial crop of early potatoes. U. S. Dept. Agr. Circ. 149, 44pp. Washington, 1931. 1 Ag84C
Transportation charges, pp. 7-9. Includes table showing minimum carload freight rates per 100 pounds of potatoes from certain shipping points to representative markets.

1079. Taking potatoes to market; Bangor & Aroostook develops service from northern Maine. Railway Age 90(16): 757-758, 766. Apr. 18, 1931. 288.8 R136
"During the season of 1929-30, the Bangor & Aroostook hauled 47,480 carloads of potatoes from the producing territory in Aroostook County in northern Maine and delivered 95 per cent of these cars at southern Maine junction points on the day following loading."

1080. U. S. Department of agriculture. Protecting winter shipments of potatoes - heat needed in cars to keep out frost. U. S. Dept. Agr. Weekly News Letter 8(16): 7. Nov. 17, 1920. 1 Ag84W

1081. U. S. Department of agriculture, Bureau of markets. Protection of potatoes from cold in transit - lining and loading cars. U. S. Dept. Agr. Farmers' Bull. 1091, 27pp. Washington, D. C., 1920. 1 Ag84F
"This bulletin, which is a revision of Markets Document 17, Lining and Loading Cars of Potatoes for Protection from Cold, explains successful methods of lining and loading potatoes in box cars, produce cars, refrigerator cars, and heater cars."

1082. Waid, C. W. The motor truck and the potato market. Market Growers Jour. 48(8): 312. Apr. 15, 1931. 6 M34
Tells of the influence of the increased use of the motor truck on the potato market.

1083. Wertz, Virgil R. South Dakota potatoes; production, prices, destinations. S. Dak. Agr. Expt. Sta. Bull. 234, 40pp. Brookings, June 1928.
Contains a comparison of freight rates on potatoes from South Dakota and from some competing points to Chicago; and freight rates on potatoes from South Dakota and some competing points to Kansas City.
South Dakota occupies a favorable position in the production of potatoes as far as freight rates are concerned.

1084. Woodward, Carl R. How motor trucks boost farm values. They end the Jersey growers' old shipping troubles. Country Gent. 86(10): 5. Mar. 5, 1921. 6 C833
The effect of the advent of the motor truck on the potato-growing regions of New Jersey is described.

1085. Wright, Robert Claude, and Diehl, H. C. Freezing injury to potatoes. U. S. Dept. Agr. Tech. Bull. 27, 23pp. Washington, D. C., October 1927. 1 Ag84Te

Literature cited, p. 23.

This study of freezing injury to potatoes in storage and transit is discussed under these topics: Plan of the investigations; Influence of different storage temperatures upon the freezing points; Undercooling and resistance to freezing; The development of freezing injury; and Types of injury from freezing.

Sweet Potatoes

1086. Spilman, Harold Addison. Preferred containers for sweet potato containers. Essentials that are necessary for market preferences. Figures given that are worth while considering. Barrel and Box 31(7): 11-14. September 1926. 99.82 B87

1087. The ventilation of sweet potatoes in transit. Market Growers Jour. 46(11): 414-415. June 1, 1930. 6 M34

To ensure the lowest percentage of decay in storage and in transit, an abundance of freely moving dry air is essential.

Tomatoes

1088. Spilman, Harold Addison. Types of containers used for shipping tomatoes. Various packages devised to carry these perishable products with maximum safety. Barrel and Box 31(1): 11-14. March 1926. 99.82 B87

1089. Wright, Robert Claude, and Whiteman, Thomas Moore. Freezing of greenhouse-grown tomatoes in transit. U. S. Dept. Agr. Circ. 291, 8pp. Washington, D. C., September 1933. 1 Ag84C

The characteristics of the freezing injury are described. It is stated that since the skin of greenhouse-grown tomatoes is frequently more or less transparent, exposing some of the vascular tissue beneath, this condition is sometimes erroneously considered an indication of chilling or freezing injury. Jolting in transit causes freezing injury.

Grain

General

1090. B/L binds carrier. Coop. Manager & Farmer 15(4): 21-22. December 1925. 280.28 C78

"Hereafter railroads which accept a carload of grain weighing less than the B/L calls for will be liable to the receiver for damages, according to a decision handed down by the U. S. Circuit Court of Appeals in a case brought against the C. & N. W. railroad."

1091. Baker, Clarence M. Hauling grain with motor truck. Power Farming 29(7): 16. July 1920. 58.8 T41
Hauling grain directly from thresher to railroad station.

1092. Barnes, Julius H. The transportation situation and the farmer. Farmers stand to lose millions by railroad traffic congestion - over-regulation the cause. Railway Age 73(17): 756-759. Oct. 21, 1922. 288.8 R136
From an address before the National Conference of Business Papers, New York, Oct. 12, 1922.
Uses as an illustration the grain trade of the country.

1093. Bates, Erastus Newton, Bodnar, George Paul, and Stirniman, Edward J. Bulk and sack handling of grain in the Pacific Coast states. U. S. Dept. Agr. Circ. 161, 28pp. Washington, D. C., March 1931. 1 Ag84C
Modern transportation developments favor the bulk system. The size, motive power, and facilities of ships are now favorable to the handling of bulk grain. Construction of terminal elevators for handling grain in bulk at export points has continued.

1094. Bates, Erastus Newton. Bulk handling of grain. Calif. Cult. 76(12): 334, 339. Mar. 21, 1931. 6 C12
Sets forth the reasons for the continued use of sacks in handling grain on the Pacific Coast and describes the advantages of bulk handling.

1095. Canvas car lining protects grain shipment. Popular Mech. 35(1): 27. January 1921. 291.8 P81

1096. Car and car about not fair says Kansas. Amer. Coop. Jour. 17(9): 12. September 1922. 280.28 Am3
"The Farmers Cooperative Grain Dealers Association of Kansas... has been putting up a strong fight before the Public Utilities Commission of Kansas to have them do away with the method of distributing grain cars to the different grain elevators at each local station on the old basis of car and car about..."

1097. Coleman, David Augustus, Rothgeb, Benton Early, and Fellows, Harold Carter. Respiration of sorghum grains. U. S. Dept. Agr. Tech. Bull. 100, 16pp. Washington, D. C., 1928. 1 Ag84Te
Literature cited, pp. 15-16.
Some of the difficulties encountered during preservation in transit or storage of large quantities of threshed grain are discussed. Tests show that if the temperature is sufficiently high (100° F. or more) sorghum grains that contain over 14 per cent of moisture will go out of condition.

1098. Coon, Owen L. Shippers loss and damage claims. Coop. Manager & Farmer 9(8): 40-41. April 1920. 280.23 C78
Cites the large number of grain claims filed against the railroads and gives suggestions to shippers on preventing loss and damage of grain in transit.

1099. Corkran, Herbert. Cutting down grain door costs. Baltimore & Ohio reclamation plan results in annual saving of $140,000. Railway Age 86(22): 1283-1284. June 1, 1929. 288.8 R136
A car door protection bureau was established and inventory statements required.

1100. Cornell, F. C. Water carriers and the grain trade. World's Grain Exhib. and Conf. Proc. (1933)1: 249-255. 59.9 W89
Describes the important part which the water carrier has played in the domestic and international grain trade.

1101. Duddy, Edward A., and Revzan, David A. The competitive position of the Chicago market in the region of grain supply. Jour. Farm Econ. 16(4): 637-661. October 1934. 280.8 J822
"A measure of the competitive position of the Chicago market, relative to other markets, was taken on the basis of prevailing price and freight rate differences between Chicago and St. Louis, Omaha, Kansas City and Minneapolis, on wheat, corn, and oats, over the period 1924-1931..."

1102. Duddy, Edward A., and Revzan, David A. The shipment of grain and grain products from Chicago, 1924-25-1932-33. Jour. Business Univ. Chicago 8(2): 150-187. April 1935. 280.8 J825
Effect of transportation rates on grain shipments is discussed on pp. 179-182; The use of transit balances on pp. 182-185; and Increased relative cost of transportation on pp. 185-187.

1103. Edwards, Ford K. Grain laws and transportation history. Grain & Feed Jours. Consolidated 79(2): 74-75. July 28, 1937. 298.8 G762

1104. Elmes, Robert W. The Great Lakes grain movement, Buffalo, and the St. Lawrence shipway. 26pp. Buffalo, N. Y. Chamber of commerce, 1929. 286.359 E16
This analysis of the Great Lakes grain movement with especial reference to the port of Buffalo, tends to show that the St. Lawrence shipway would be of much more economic benefit to Canada than to the United States. The major portion of the Great Lakes grain movement is Canadian.

1105. Food research institute, Stanford University, California. Projected waterways in North America as related to export of wheat. Food Research Inst., Leland Stanford Univ., Wheat Studies 8(9): 445-468. Stanford University, Calif., August 1932. 59.8 F73
Contents: I. Introduction; II. The wheat regions concerned in export trade; III. The Mississippi Waterway; IV. The Great Lakes - St. Lawrence seaway; V. The Hudson Bay route; VI. The expected saving in freight cost; VII. The incidence of the saving; VIII. Concluding observations.

1106. Ford, E. F. Coopering cars for grain. Railway Age 71(7): 284. Aug. 13, 1921. 288.8 R136
Suggestions to grain shippers, calling attention to the need for careful inspection and preparation of grain cars.

1107. Ford, E. F. Salvaging grain at derailments and in yards. Railway Age 78(28): 1470. June 13, 1925. 288.8 R136
The problem was solved by maintaining a supply of 1,500 second-hand gunny sacks at division headquarters. The grain is sacked by the men attached to the derrick, which is idle at times when it is obliged to move to a siding to let trains pass.

1108. Foster, L. G. Some factors affecting the movement of Ohio wheat. Ohio Agr. Expt. Sta. Bull. 458, 48pp. Wooster, 1930.
The freight rate structure as it applies to Ohio is discussed on pp. 21-27. Proportional charges on reshipping privileges as they affect the movement of Ohio wheat, and milling in transit are included in the discussion.

1109. The freight-car liner. Sci. Amer. 126(3): 190. March 1922. 470 Sci25
A liner for cars carrying loose grain is described.

1110. Gage, Earle W. New York's canal system. Famous eastern waterway insures leadership of Buffalo in American grain trade. Grain World 102(8): 7-8, 55. Oct. 9, 1929. 286.8 C49

1111. Hartshorne, Richard. The significance of lake transportation to the grain traffic of Chicago. Econ. Geogr. 2(2): 374-231. April 1926. 278.8 Ec7
"Lake transportation has determined the preëminent importance of Chicago in the grain trade of North America. One fifth of the total recorded grain movement of the United States passes through Chicago...
"In analyzing the significance of Lake Transportation to the grain traffic of Chicago, it is necessary to show the influence of the factors affecting the origin of receipts, the destination of shipments and the routes and methods of transportation employed."

1112. Haynes, J. P. Transportation of grain. Amer. Inst. Agr. Marketing Grain Lesson 7, 28pp. Chicago, Ill., 1923. 280.3 Am34G
The study outline for this lesson lists: Efforts to control the car supply, How grain moves to terminal markets, Advantages of special transit privileges, Proportional or reshipping privileges, How to secure transit privileges, How shippers are checked up, and Carriers supply grain doors.

1113. Heavy wheat movement without car shortages. Problem of handling huge grain crop solved by efficient operation. Railway Age 105(8): 275-277. Aug. 20, 1938. 288.8 R136

1114. How farmers are benefiting by good railway service. Railway Age 77(15): 627-629. Oct. 11, 1924. 288.8 R136
Describes the excellent service which the grain farmers are receiving from the railways and discusses what would have been the effect of the LaFollette-Brookhart policy of permanently reducing the valuation of the railways by about one-third and of reducing rates without any corresponding reductions of operating expenses.

1115. How railroads disrupt grain markets. An important phase of the present car shortage. Orange Judd Farmer 68(3): 97, 119. Jan. 17, 1920. 6 Or1
A table shows cars wanted for grain shipment and not secured, Dec. 24 at 400 Illinois stations.

1116. Huff, C. E. Development of river transportation for grain. Bur. Farmer (Nebr. ed.) 8(9): 10. May 1933. 280.82 B89
Mr. Huff says that the importance of river transportation in lowering transportation costs of grain for Nebraska farmers is emphasized by developments on the Illinois and Mississippi rivers.

1117. An improved grain elevator for export service. Pennsylvania's new plant at Baltimore, Md., has modern facilities for large capacity operation. Railway Age 69(1): 9-13. July 2, 1920. 288.8 R136
Construction details are given, distribution of the grain is described and plans and illustrations included.

1118. Johnson, Neil W., Landerholm, Edwin Francis, Kuhlman, Gustav Wesley, and Gaston, Thomas Lee. Farm-management problems in shifting from sack to bulk handling of grain in the Pacific Northwest. U. S. Dept. Agr. Tech. Bull. 287, 40pp. Washington, D. C., February 1932. 1 Ag84Te
In cooperation with the Agricultural experiment stations of Washington, Oregon, and Idaho.
Hauling direct from farm to car, pp. 27-29; Retarding influences in shifting to bulk handling, pp. 29-36.

1119. Johnson, William. All threshed out and no way to sell. The new harvest finds last year's crops not yet moved. Country Gent. 85(34): 15, 30. Aug. 21, 1920. 6 C833
Discusses the shortage of freight cars in which to move the 1920 crop of grain.

1120. Kansas wheat movement unprecedented. Heavy peak traffic taxes railway and elevator facilities. Railway Age 87(5): 335-337. Aug. 3, 1929. 288.8 R136
Describes the lack of storage facilities and the shortage of cars because of the heavy wheat crop and the amount of old grain in storage at the beginning of the season.

1121. Klein, Jack. Bulk handling grain lowers costs. Calif. Cult. 70(2): 38. Jan. 14, 1928. 6 C12
Costs saved in the transportation of bulk handled grain are cited.

1122. Lassiter, N. H. Address...at the Fort Worth-Rock Island lines agricultural and community life institute. 8pp. Fort Worth, Tex., November 14, 1923. Pam. Collect. (Railroads)
Speaks against government ownership. Discusses the demand for reduction of freight rates on wheat.

1123. McDonnell, C. W. Farm and transportation problems. Coop. Manager & Farmer 15(8): 33-34. April 1926. 280.28 C78
Transportation problems as they affect the grain grower are discussed.

1124. Merriam, Ralph. Transportation problems. Amer. Coop. Jour. 15(2): 12, 14, 34. February 1920. 280.28 Am3
Transportation problems as they affect grain growers and shippers are discussed.

1125. Nebraska farm bureau federation. Co-operative makes history. Bur. Farmer (Nebr. ed.) 10(12): 7. August-September 1935. 280.82 B89
Describes the first "movement of wheat ever to go down the Missouri River from Kansas City, on its way for a water-all-the-way trip to Chicago..."It was shipped by the Farmers National Grain Corporation.

1126. Need transit on soy beans. Grain Dealers Jour. 63(4): 243. Aug. 25, 1929. 298.8 G76
"Soy beans are becoming an important factor in the grain and feed trade and should be accorded the full privileges of grain in all freight rate and privilege schedules according to representatives of the grain and feed trade who appeared before a hearing of the Central Freight Ass'n held in Chicago August 20..."
It was emphasized that the movement of soybeans for seed was a small part of the total shipments.

1127. New grain unloader saves time at elevators. This labor saving facility also opens car doors without injury or any loss of time. Railway Age 69(3): 93-94. July 16, 1920. 288.8 R136
Two diagrammatic views of the grain car dumper are shown.

1128. Norton, Laurence Joseph. Some recent changes in transportation of grain. Ill. Agr. Expt. Sta. Dept. Agr. Econ. Ill. Farm Econ. no. 47-48, pp. 239-241. Urbana, April-May 1939. 275.28 I15

1129. Pickell, Mark W. How to cure the car evil. Amer. Coop. Jour. 15(1): 32. January 1920. 280.28 Am3
Lists three steps in a remedial program. 1. Store grain on the

farm; 2. The acquiring and furnishing by the railroads of an ample number of cars; 3. Make more use of the storage facilities of terminal grain markets.

1130. Railways establish all-time records in handling wheat. Bumper crop moved without car shortages or unloading grain on the ground. Railway Age 103(7): 193-196. Aug. 14, 1937. 288.8 R136
Describes the successful handling of the peak movement of winter wheat.

1131. Rickey, Lacey F. Business procedure in shipping grain direct from producing to consuming sections. Ill. Agr. Expt. Sta. Circ. 359, 20pp. Urbana, 1930.
Distinct savings in freight and terminal charges may result from shipping grain direct to the area where it is to be used for feeding or other purposes.

1132. Santa Fe speeds up wheat movement. Triple-crewing and other modern operating methods aid in transporting grain crop. Railway Age 85(20): 961-964. Nov. 17, 1928. 288.8 R136
"The rapid growth of the use of combines and tractors in the harvesting of wheat in the territory served by the Santa Fe, has created new operating problems for that railway and others in that area to solve. The new harvesting method results in a greatly accelerated movement of the grain to market, as compared with the binder method of harvesting, when the grain remained on the field in shocks or in stacks for some time, and its movement was spread over a longer period. Despite the radical change in loading conditions, however, the Santa Fe, by improved operating methods, particularly in yards, was able to handle 58,212 cars of grain in the three months ending September 21, 1928, an average of 19,404 cars per month, without a single complaint regarding the supply of empty cars or the movement after loading."

1133. Stoll, Frank M. The growth of trucking competition. Farmers' Elevator Guide 34(1): 25-29. Jan. 5, 1939. 280.28 Am3
Address before the 42d. Annual Convention of the Grain and Feed Dealers Association, Toronto, Sept. 26-27, 1938.
Considers "the application and non-application of regulatory measures and their effect on the transportation and merchandising of grain and other staple commodities."

1134. Taylor, Alonzo E., and Brand, Elizabeth M. American importation of Canadian wheat. Food Research Inst. Leland Stanford Univ. Wheat Studies 3(1): 1-75. Stanford University, 1926. 59.8 F73
Part V of the study, Transportation Factors in Importation of Canadian Wheat, discusses transportation costs from terminal markets to milling centers; freight rates from country points to terminal markets; and effect of rate structures. The great bulk of Canadian

wheat that moves into overseas export through the United States is shipped through Buffalo and the great bulk imported for domestic consumption is milled in Buffalo. Reasons for this are set forth.

1135. Taylor, Alonzo E. Projected waterways in North America as related to export of wheat. Food Research Inst. Leland Stanford Univ. Wheat Studies 8(9): 445-468. Stanford University, 1932. 59.8 F73

Contents: Introduction; The wheat regions concerned in export trade; The Mississippi waterway; The Great Lakes -St. Lawrence seaway; The Hudson Bay route; The expected saving in freight cost; The incidence of the saving; Concluding observations.

"In our view the relevant evidence indicates that the St. Lawrence seaway and the central inland waterway hold out small promise for the American wheat grower. There is no convincing evidence to suggest that the saving could be over 5 cents a bushel on wheat passing out of the St. Lawrence; the saving would not apply to the wheat exported during the period of closed navigation in winter, and the weighted saving would be substantially less. We do not believe the farm prices of all wheats would be raised. We are convinced that, whatever saving accrued, it would be divided between producers in this country and consumers abroad..." - Concluding observations.

1136. Thorne, Clifford. Transportation problems of the day. Recent decisions that affect the grain business. Amer. Coop. Jour. 15(4): 28-29, 40, 44, 46. April 1920. 280.28 Am3

1137. Thorpe, J. C. The truck in threshing time. It saves time and money in hauling small grain. Orange Judd Farmer 69(6): 160, 183. Feb. 5, 1921. 6 Or1

1138. U. S. Congress. Senate, Committee on agriculture and forestry. Transportation of wheat. Hearings...66th Cong., 2d. sess., pursuant to S. Res. 211, a resolution directing the Committee on agriculture and forestry to immediately investigate the reasons for the embargo on wheat and why transportation is not available to move the wheat of Oklahoma, Kansas, Texas, Colorado, and other states, and what steps the Grain corporation has taken to obtain ships for the movement of such grain. 93pp. Washington, Govt. print. off., 1920. 59 Un32T

This statement of Mr. Julius H. Barnes, president of the United States Grain Corporation, contains an explanation of the "interferences with the free movement of wheat." These interferences were the export embargo which provided against the exporting without permits to European destinations of wheat or wheat flour; the other was the war permit control over shipments to inland markets. Statistical tables showing imports and exports are included.

1139. U. S. Department of agriculture, Bureau of agricultural economics. Notice to shippers of grain in trucks in re - duties and liabilities under Grain standards act. 3pp., processed. [Washington, D. C., January 25, 1937] 1.9 Ec7Not

1140. U. S. Department of state. Diversion of commerce from United States ports to Canadian ports. Message from the President of the United States transmitting a report of the Secretary of state, the Secretary of agriculture, and the Interstate commerce commission, in response to Senate Resolution No. 220, relative to the diversion of commerce from ports in the United States to Canadian ports, together with a report by the United States Shipping Board. 70th. Cong., 2d. sess., Senate Doc. 212, 154pp. Washington, D. C., 1929. 148 8990

Supplemental to Senate Document 212 and bound with it is Senate Document 219, Transportation charges in the United States and Canada. Comparisons between transportation charges in United States and Canada on agricultural products. 37pp., maps. These charges relate to grain and show Diversion of United States grain through Canadian ports; Factors affecting the movement of grain; Preferential customs regulations; and United States and Canadian rate structures.

1141. U. S. Federal coordinator of transportation. Statement...[dealing with the operation of railroad-owned terminal grain elevators] various paging, processed. [Washington, D. C.] 1934. 280.359 Un34

An 88-page supplement entitled "Report on the Leasing of Railroad Owned Grain Elevator Properties," accompanies this report.

These reports, according to Joseph B. Eastman, Federal Coordinator of Transportation, "reach the conclusion that, if the railroad-owned elevators at each terminal market were pooled for operation, there would result large economies: (a) in the cost of elevator operation; (b) in the elimination of unnecessary switching and cross hauls, and that larger revenues would be received therefrom..."

1142. U. S. Interstate commerce commission. Claims for loss and damage of grain. Submitted November 8, 1919. Decided January 13, 1920. Specifications and rules for the handling of bulk grain in interstate commerce, and the filing, investigation, and disposition of claims for loss and damage incident thereto, tentatively indorsed. pp. 347-399. [n.p.,1920] 168.1 C52

Supplemental report proposed by Examiner H. C. Wilson. 24pp., processed. [1920?]

1143. U. S. Tariff commission. Flaxseed. Report...to the President of the United States. Differences in costs of production of flaxseed in the United States and in the principal competing country, as ascertained pursuant to the provisions of section 315 of title III of the tariff act of 1922. 64pp. Washington, U. S. Govt. print. off., 1929. 173 T17Fla

Transportation of flaxseed is discussed on pp. 32-36 under costs of production. Actual charges are given: from Argentine ports to New York; rates on domestic flaxseed to principal markets; transportation to Duluth; handling charges at Duluth; charges to Buffalo and New York; and charges on Argentine flaxseed from New York City to Buffalo.

1144. [Vehon, M. L.] Trucking of grain and its effect on country dealers, terminal markets and the railroad. Coop. Manager and Farmer 22(12): 16-18. August 1933. 280.28 C78
Read before the annual convention of the Western Grain & Feed Dealers' Association, Cedar Rapids, June 21, 1933.

1145. White, R. R. Eliminating delays to grain cars. Railway Age 75(14): 627. Oct. 6, 1923. 288.8 R136
Mr. White thinks that a second and more rigid inspection of grain cars would prevent delay in moving.

1146. Wickizer, V. D. Shipping and freight rates in the overseas grain trade. Food Research Inst. Leland Stanford Univ. Wheat Studies 15(2): 49-120. October 1938. 59.8 F73
Contents: I. Characteristics of the shipping industry; II. The freight market and freight rates; III. Grains in seaborne trade; IV. Grain routes and ports (includes map); V. Ocean freight rates on grain; VI. Elements in the outlook; Appendix notes: A. Sources of ocean freight rate data; B. Indexes of ocean freight rates; Appendix tables including III. Ocean freight rates on wheat and corn to Europe, monthly and annual averages for crop years 1922-23 to 1937-38; IV. Ocean freight rates on wheat and corn to Europe, annual averages and range in monthly averages for crop years 1922-23 to 1937-38; and V. Seasonal indexes of ocean freight rates.

1147. Winter wheat crop moved successfully; railroads did a good job. Farmers' Elevator Guide 32(9): 26, 28. September 1937. 280.28 Am3
The largest wheat crop in 14 years, excepting 1931, was successfully moved despite a reduction in the number of cars available.

Freight Rates

1148. Anderson, W. A. In the matter of interstate rates on grain, grain products and hay in carloads between points in the Western and Mountain-Pacific groups. Docket 12929. Brief for intervener. Railroad commission of Wisconsin...W. A. Anderson, of Counsel... 13pp. Madison, Wis. Blied print. co. [1922] 289.22 An2
Brief filed with the Interstate Commerce Commission.

1149. Archer-Daniels-Midland company... ...Before the Interstate commerce commission. Ex parte no. 115. Increases in freight rates and charges, 1935. Brief relating to rates on flaxseed, flaxseed screenings and linseed cake and meal for Archer-Daniels-Midland company; Spencer Kellog and sons, inc., Minnesota linseed oil co., Minneapolis traffic association. 43pp. [Minneapolis] 1936. 289.22 Ar2
The brief and argument presented here protest against higher freight rates on flaxseed and its products than on wheat and other grains.

1150. Bentley, Ronald C. Freight costs of moving Iowa feed grains from surplus to deficit areas. Iowa Agr. Expt. Sta. Bull. 342, pp. 116-148. Ames, 1936.

The author discusses the freight rate structure; intrastate or local rates to Iowa markets (rates to Cedar Rapids, Des Moines, Council Bluffs and Sioux City, Mississippi River markets), joint rates; interstate or through rate to out-of-state markets (rates to Chicago, Milwaukee, Peoria, St. Louis, Kansas City, Omaha, and Minneapolis); proportional or joint rates to Iowa's deficit areas (Minneapolis, Omaha, and Kansas City proportional); proportional vs. intrastate rates; and interstate vs. proportional.

This is a discussion of rail rates.

1151. Benton, John Edwin. Interstate rates on grain, grain products and hay, in carloads, between points in the western and mountain-Pacific groups. Argument of John E. Benton...appearing for the regulatory Commissions of Arizona, California, Colorado...[etc.] September 2, 1921. 65pp. Washington, D. C., Press of B. S. Adams [1921] Ry. Econ. Libr. HE2116.G7B4

Docket no. 12929, Interstate Commerce Commission.

1152. Bureau of railway economics, Washington, D. C. A study of the economic effect of reductions in freight rates on export wheat - 1929. Bur. Ry. Econ. Bull. Spec. Ser. 55, 45pp. Washington, D. C., 1930. 289.29 B89

"Designed as an emergency measure, to increase our foreign trade in wheat and to stimulate foreign buying, so that the American farmer might dispose of or at least reduce his surplus in advance of the 1929 harvesting, the action of the railroads in reducing the export rates on wheat was an unsuccessful experiment. It did not lead to the hoped-for increase in export trade, it did not stimulate foreign buying of United States wheat, nor did it avert the decline in wheat prices. It did induce foreign countries to take steps to meet the rate reductions in the United States. This was done by corresponding rate reductions in Canada; by increased import duties in France, Germany, Italy, and Roumania; by counteracting measures in certain other countries." - Summary, p. 31.

1153. Central freight association, Tariff bureau. Freight tariff no. 245-F... Local, joint and proportional rates applying on grain, grain products and by-products of grain and other commodities...from stations in Illinois, Indiana, Iowa, Kentucky, Michigan, Missouri, New York, Ohio, Pennsylvania, West Virginia, Wisconsin...to Albany, N. Y., Baltimore, Md., Boston, Mass., New York, N. Y., Philadelphia, Pa., Rochester, N. Y., Syracuse, N. Y., Utica, N. Y...also basis for rates to United States and Canadian ports for export, as provided in Section 2, also joint rail-motor rates to points served by the Boston & Maine Transportation Company. 364pp. & supplements. Chicago, B. T. Jones, agent, 1937. 289.22 C33

Cancels Freight Tariff no. 245-E.

1154. Chicago. Board of trade, Transportation dept. No. 6. West of Mississippi river book of grain rates to Chicago, Ill. from points in Iowa, Missouri, Minnesota, South Dakota, and North Dakota. Effective July 1, 1935. 35pp., processed. [Chicago, 1935] 289.22 C43W
Kept up to date by Supplements. No. 6 cancels no. 4.

1155. Chicago. Board of trade, Transportation dept. No. 9. East of Mississippi River book of grain rates to Chicago, Ill. from points in Illinois and Indiana and points in Iowa and Missouri on the West bank of the Mississippi River in effect November 1, 1937. 62pp. and supplements. processed. Chicago, [1937] 289.22 C43 no. 9
Cancels no. 8.

1156. Davis, Jesse N. Before the Interstate commerce commission. Docket no. 12929 in the matter of interstate rates on grain, grain products, and hay, in carloads, between points in the Western and Mountain-Pacific groups. Application for re-hearing. 16pp. Washington, D. C., 1921. Ry. Econ. Libr. HE2116.G7D3
J. N. Davis, Fred H. Wood, Kenneth F. Burgess, Alfred R. Thom, counsel for petitioners, 1921.

1157. Dummeier, Edwin F. Canadian grain rates vs. rates in U. S. Bur. Farmer (Wash. ed.) 3(11): 15, 19. July 1928. 280.82 B89
Freight rates on grain for export in Canada were found to be much lower than in the United States, typical rates averaging only about half as much for the distance covered as rates in this country. Examples of rates are given.

1158. Duncan, Carson Samuel, and Bilo, E. F. Transportation charges in the United States and Canada. Prepared for the Association of railway executives. 49pp. Washington, D. C., 1928. 289.22 D91
Part VII. Factors affecting the movement of grain, includes 1. Relative rail rates; 2. Competing water rates; 3. Ocean rates; 4. Grading and inspection; 5. Port facilities, service and charges.
Part IX deals with United States and Canadian rate structures.
Published also as 70th. Cong., 2d. sess. Senate Document no. 219 (286[Un]), which is supplemental to Senate Document 212 which has title: Diversion of commerce from United States ports to Canadian ports.

1159. Fort Worth grain and cotton exchange. Before the Interstate Commerce Commission and Railroad Commission of Texas. Docket 27725, Intrastate coarse grain rates in Texas; docket 27337, The Texas industrial traffic league, et al, vs. Abilene and Southern railway co., et al... Brief of exceptions of Fort Worth grain and cotton exchange, Texas grain and feed dealers association to proposed report of examiners Mackley and Hall. 26pp. Forth Worth, Tex., Fort Worth brief print. co., 1938. 289.22 F77

1160. Freight rate reduction announced. Grain is first of farm products to be affected. Orange Judd Farmer 69(30): 734. Aug. 15, 1921. 6 Orl
The new rates on grain, both export and domestic, from St. Louis and Chicago to various markets, are listed.

1161. Freight rates reduced because of drought. Railway Age 89(7): 333-334. Aug. 16, 1930. 288.8 R136
"At the request of President Hoover and under a special authorization issued by the Interstate Commerce Commission the railways acted promptly this week to establish special emergency rates, 50 per cent of the usual rates, to assist in relieving conditions caused by the prolonged drought over a large section of the country, for the movement of hay, feed and water into the districts in which drought exists and of livestock out of such districts to points where feed is available."

1162. Freight rates reduced on Idaho alfalfa. Natl. Wool Grower 11(1): 25. January 1921. 45.8 N21N
Rates on alfalfa meal and hay from Idaho points east to the Missouri river were to be reduced from $15 to $10 a ton.

1163. Geary, Arthur M. Alleged inefficiency of Northwest railroads contribute to high freight rates. Bur. Farmer (Wash. ed.) 4(1): 17, 22. September 1928. 280.82 B89
This is a letter written by Mr. Geary, who was attorney in the Grain Rate Case for farm organizations of the Inland Empire. Introduced as testimony at Portland hearing of Interstate Commerce Commission.

1164. Geary, Arthur M. Farm organization files reply to dismissal motion. Bur. Farmer (Wash. ed.) 8(6): a-b. February 1933. 280.82 B89
Motion for dismissal of the case before the Interstate Commerce Commission relative to the lowering of rates on grain and grain products within the Western district and for export was brought by the grain exchanges, millers, manufacturers and processors. The Farm Bureau Federation opposed the motion.

1165. Geary, Arthur M. Final summary of Grain rate case. Bur. Farmer (Wash. ed.) 4(2): 20-22. October 1928. 280.82 B89

1166. Kansas. Public utilities commission. Before the Interstate commerce commission. Western advance rate case in re advance in rates in Western classification territory, I. & S. docket 555. Brief and argument of A. E. Helm...as to advances in rates on grain and grain products on behalf of the State railroad and public service commissions of Minnesota, Nebraska, Kansas, South Dakota, North Dakota, Oklahoma, Louisiana, Iowa, Arizona, Arkansas, Colorado, Idaho, Montana, Nevada, New Mexico, and Traffic bureau of Utah. 169pp. [n.p.] 289.22 K13
Includes discussion of direct transportation cost of handling grain and grain products; and farmer's need for additional revenue.

1167. Kansas. Public utilities commission. In the matter of rates and charges on grain and grain products. Docket no. 15263. Presented in behalf of Western railroads by L. E. Wettling. 2v. Chicago, Statistical bureau - Western lines, 1923. 289.22 L13M

Exhibit no. 75A, 104A, Before the Interstate Commerce Commission, Public Utilities Commission of Kansas vs. Atchison, Topeka & Santa Fe Ry Co., et al. Docket no. 14393 reopened.

1168. Kansas City-Gulf wheat rate cut jeopardizes rate structure. Reduced tariffs discriminate against parts of the country and eastern and western lines. Railway Age 87(23): 1319-1321. Dec. 7, 1929. 288.8 R136

Discusses the reduction of the export wheat rate from Kansas City to Gulf ports from 30.5 cents to 23.5 cents per 100 lb. effective on August 15, 1929. It was felt that this action on the part of the Kansas City Southern had created a situation which might lead to a readjustment of the entire wheat rate structure.

1169. Kansas State farm bureau. How freight rates affect farm prices. Bur. Farmer (Kans. ed.) 3(8): 17, 22. April 1928. 280.82 B89

Quotes from testimony of Clyde M. Reed at the Chicago hearing of the Grain Rate case in which "the railroads are asking an increase of approximately 40 per cent on Kansas grain..."

1170. McGinnis, Jimmie. Grain rates interpretation. Flour & Feed 32(3): 12-13. August 1931. 298.8 F66

"Jimmie McGinnis, Memphis expert, analyzes ruling which will go into effect Aug. 1."

1171. Maryland farm bureau federation. Farm bureau brings railroad to terms in fight for storage-in-transit rates. Bur. Farmer (Md. ed.) 5(11): 11. July 1930. 280.82 B89

"Resourcefulness in business transactions by the Maryland Farm Bureau Federation has recently been the means of winning a signal victory over the Pennsylvania Company for farmers of the state, in securing for them storage-in-transit rates on carload shipments of grain destined for out-of-state points..."

1172. Mills, W. H. Milling in transit and proportional rates by rail for Minneapolis. Farmers' Elevator Guide 34(4): 8-9, 28-30. April 1939. 280.28 Am3

1173. Minneapolis chamber of commerce leads fight for reduction of freight rates on grain which would be of great benefit to the entire Northwest. Coop. Manager and Farmer 16(1): 22-23. September 1926. 280.28 C78

Hearings covering a proposed reduction of 6 cents per 100 pounds in the proportional rates on grain and grain products from Minneapolis to Trunk Line Territory and New England, applicable on grain and grain products originating at points in northwestern Minnesota, North Dakota and Montana were to be held before the Interstate Commerce Commission.

1174. Morgan, Charles S. Who bears the freight rate? 12pp. New York, Committee on public relations of the eastern railroads, 1929. Ry. Econ. Libr. HE2116.G7M8

Reprinted from a proposed report by Examiners of the Commission (Docket no. 17,000, part 7)

This discussion is primarily on the short-run effects of a possible general reduction of rates on wheat.

1175. Nebraska farm bureau federation. Secures emergency hay and grain rate for farmers in drouth stricken territory. Bur. Farmer (Nebr. ed.) 2(7): 9-10. March 1927. 280.82 B89

1176. Oklahoma. Corporation commission. Before the Interstate commerce commission. No. 17,000, Rate structure investigation, Part 7, Grain and grain products. Statistical and graphic presentation of facts relative to the economic situation of Oklahoma farmers. Presented... by J. T. Sanders. 48pp. Oklahoma City, July 1927. 289.22 C81 Pt. 7 Exhibit.

Includes figures showing changes in freight revenue and tonnage of wheat on the C.R.I.& P. Railway.

1177. Oklahoma. Corporation commission. Before the Interstate commerce commission. No. 17,000, Rate structure investigation, Part 10. Hay. Exhibit 210. Hay situation in Oklahoma. Presented...by J. T. Sanders. 30pp., processed. Oklahoma City, 1928. 289.22 C81 Pt. 10 Exhibit 210

Table 14 shows Indexes of freight rates on hay from representative Oklahoma points to Memphis, Tennessee.

1178. Oklahoma moves for better freight rates. Farmer grain dealers get action. Join with Kansas in commission company. Amer. Coop. Jour. 16(2): 6-7. February 1921. 280.28 Am3

Says that it costs 34 cents to ship a bushel of wheat for export from Oklahoma City to Galveston, Tex., while from Kansas City to Galveston the cost is only 27 cents, and tells of the decision to join with the Farmers Co-operative Commission Company of Kansas.

1179. Olson, A. J., and Jones, J. S. Minnesota Farm bureau officers object to hay rate increase. Bur. Farmer (Minn. ed.) 4(3): 21. November 1928. 280.82 B89

Gives brief and arguments submitted before the Interstate Commerce Commission at Saint Paul Hearing.

1180. Opposition by millers and Eastern roads to 6 cent cut in grain rates by Minneapolis & St. Louis RR - Six roads authorized to reduce rate 3 cents on grain shipments from Southwest. Com. and Financ. Chron. 123(3189): 665-666. Aug. 7, 1926. 286.8 C73

1181. Ostrolenk, Bernhard. Reduction of freight rates on wheat a futile "emergency" measure. Annalist 33: 851, 855. May 10, 1929. F284.8 N48

Scores the action of the presidents of the Eastern railroads in reducing freight rates on the wheat surplus of Kansas.

1182. Railroads decline to reduce export wheat rates. Railway Age 75(19): 869-870. Nov. 10, 1923. 288.8 R136

"That the railroads believe that a reduction in the export rates on wheat would not benefit the American wheat grower, but would only result in the lowering of the price of export wheat at the expense of the railroads, was the reply given by a committee of railroad executives on November 1 to the suggestion made by President Coolidge to President Rea of the Pennsylvania on October 16 that he thought it would be helpful if the railroads could make some reduction in these rates..."

1183. Rate differential. Oreg. Voter 57(5): 171,177-185. May 4, 1929. 280.8 Or3

Shows that wheat growers benefited in price and Columbia Valley ports benefited in volume under the Portland differential, established in 1921.

1184. Reduction of export wheat rates refused. Railway Age 75(8): 343. Aug. 25, 1923. 288.8 R136

The Omaha Chamber of Commerce had petitioned the railways to make a reduction of 25 per cent in freight rates on export wheat. The petition was refused.

1185. Ritter, Alfred H. World wheat markets. Influence of transportation costs on the wheat trade of the United States. 24pp. Duluth, Great Lakes-St. Lawrence tidewater association, 1924. 289 R51W

"The purpose of this paper is to present as briefly as possible the influence of transportation as one of the outstanding factors in the competition of the United States with other countries producing a surplus of wheat for export..."

The study shows how the proposed St. Lawrence ship canal would reduce freight rates on wheat.

1186. Roads agree to reduce export grain rates. Railway Age 86(19): 1118-1119. May 11, 1929. 288.8 R136

"At a meeting of presidents and traffic executives of the principal eastern railroads in Washington on May 2, convened at the instance of the President and members of his Cabinet, it was decided to put into effect a temporary emergency reduction in the rates from St. Louis, Chicago and Lake Erie ports to the north Atlantic seaboard, to expire by limitation on September 30, and it was announced that similar action was expected from the western roads..."

1187. Roads prepare to reduce export wheat rates. Railway Age 86(20): 1168-1169. May 18, 1929. 288.8 R136
Describes the efforts of the railways to comply with the request of President Hoover that they reduce their rates on export wheat.

1188. Smart, V. E. Missouri grain rates... 44pp. Jefferson City, Mo., V. E. Smart, 1928. 289.22 Sm2
"Giving a history of legislation in Missouri, and of proceedings before the State and Federal Courts, the Interstate Commerce Commission, the Missouri Public Service Commission and its predecessor, the Board of Railroad and Warehouse Commissioners, which have shaped the railroad rate structure in Missouri on grain and grain products, as that structure now exists. Also showing the various scales of rates that have been in effect in Missouri on grain and grain products, and the present rates from numerous stations in Missouri to the primary markets at St. Louis, Kansas City, St. Joseph, and Chicago."

1189. South Dakota farm bureau federation. Another freight rate fight. Bur. Farmer (S. Dak. ed.) 3(2): 18-19. October 1927. 280.82 B89
Contains the statement submitted by the federation at hearings in Minneapolis on the Grain rate case.

1190. Stewart, Charles L., Norton, Lawrence Joseph, and Rickey, Lacey Fletcher. Market destinations of Illinois grain. Ill. Agr. Expt. Sta. Bull. 315, 115pp. Urbana, Ill., September 1928.
Includes discussion of railroad rates, lake transportation costs, and Mississippi River transportation costs.

1191. Thorpe, J. C. What it costs to haul grain by truck. Power Farming 30(1): 12-13. January 1921. 58.8 T41
"This is the story of a man who wanted facts regarding cost of hauling grain from thresher to elevator. He tells in this article just how he did it and shows the results."

1192. U. S. Congress. Senate, Committee on interstate commerce. Adjustment of freight rates upon export grain. Hearing...70th. Cong., 2d. sess., on S. J. Res. 67. A joint resolution directing the Interstate commerce commission to take action relative to adjustment of freight rates upon export grain and grain products moved by common carriers subject to the Interstate commerce act, and the fixing of rates and charges. February 1, 1929. 63pp. [Washington, D. C.] U. S. Govt. print. off., 1929. 289.22 Un32
Statements were heard from representatives of the National Grange, the Kansas State Grange, the American Farm Bureau Federation, the Kansas State Farm Bureau, the Cooperative Grain Dealers' Association of Kansas, and the Southwest Cooperative Wheat Growers' Association and others in favor of the Resolution.
A statement opposing the Resolution, from the Association of Railway Executives, is included.

1193. U. S. Department of agriculture. Freight rates on wheat to Liverpool. U. S. Dept. Agr. Weather, Crops and Markets 4(22): 588-589. Dec. 1, 1923. 1 Ag84We

Freight rates from the United States via Gulf and Great Lakes to Liverpool are given.

1194. U. S. Department of agriculture, Drought committee. Need for continuation of freight rate reductions on livestock feed moving into certain drought areas after December 31, 1936. 14pp., processed. Washington, D. C., Nov. 28, 1936. 1.9 Ag86Drn

Statement prepared for presentation to Western Trunk Line Committee.

1195. U. S. Interstate commerce commission. No. 17000. Rate structure investigation. Part VII. Grain and grain products within the western district and for export. 159pp., processed, with appendices. Washington, D. C., 1929. 168.1 G76

This is the examiner's report. It deals with rates and practices affecting the transportation of grain and grain products throughout the western district, from that district to all ports of export, and from Lake Erie ports to Atlantic ports (as part of a lake-and-rail transportation) reviewed under the Interstate commerce act and the Hoch-Smith Resolution."

Also in same binder Bulletin 36 of the National Association of Railroad and Utilities Commissioners, Section 15a Blocks Reduction in General Level of Grain Rates, by John E. Benton, Apr. 22, 1929.

1196. U. S. Interstate commerce commission. Railway rates on grain. Letter from the acting chairman of the Interstate commerce commission transmitting, in response to Senate resolution no. 208, a report concerning the relative rates on grain in the United States and in Canada. 70th Cong., 1st. Sess., Senate Doc. 107, 9pp. [Washington, D. C.] May 3, 1928. 59 [Ra]

The following points are brought out: 1. The rates for all-rail transportation of wheat from the points named in paragraph 1 of the resolution to the destinations therein named, on domestic and foreign commerce, together with the distances from such points of origin to Duluth, are included; 2. A table shows comparisons of the rates on wheat from the points in Montana and North Dakota named in paragraph 1 of the resolution to Duluth, with rates on the same commodity from points in western Canada to Fort William, Ontario, for like distances; 3. The heaviest grain production in Canada is in the Western Provinces. Reasonably satisfactory comparisons of rates from those provinces to Fort William and Port Arthur, and to Vancouver, with rates from points in the northwestern part of the United States for like distances to Duluth, on Lake Superior, and to American ports on Puget Sound are available; 4. The rates on grain for export from the western Canadian Provinces to Canadian Atlantic and Pacific ports are lower than the corresponding rates for export from the northwestern part of the United States to American Atlantic and Pacific ports.

The differences between railroad policies of Canada and the United States are brought out.

1197. Washington State farm bureau. Grain freight rate reduction hearing opens in Seattle. Bur. Farmer (Wash. ed.) 3(11): 13, 19. July 1928. 280.82 B89

Describes the issues upon which important groups are clashing such as the North Pacific Millers Association, over more equitable treatment; and the issue between Portland and Seattle over port differentials.

1198. Washington State farm bureau. Growers in grain rate case fight to the end. Bur. Farmer (Wash. ed.) 4(10): 17, 24. June 1929. 280.82 B89

1199. What about lower freight rates. Farmers' Elevator Guide 28(1): 15-16. January 1933. 280.28 Am3

A discussion of high freight rates especially as they apply to corn.

Honey and Bees

1200. American railway express company arranges to handle orders for package bees. Amer. Bee Jour. 68(4): 176. April 1928. 424.8 Am3

1201. Atkins, E. W. How to ship comb honey safely. Amer. Bee Jour. 66(9): 438. September 1926. 424.8 Am3

1202. Braithwaite, W. E. Simplification of honey containers and its relationship to increased consumption. Md. Agr. Soc. Rept. (1937)22: 237-245. College Park, Md., 1938. 4 M366

Urges a simplified schedule of honey containers.

1203. Bunger, R. Moving bees a long distance. Amer. Bee Jour. 60(5): 158. May 1920. 424.8 Am3

1204. Careless shipper of comb honey suffers the usual loss. Gleanings 48(1): 16-17. January 1920. 424.8 G47

1205. Comb honey by express. Amer. Bee Jour. 67(2): 67. February 1927. 424.8 Am3

1206. Crane, J. E. Paper shipping cases for comb honey. Amer. Bee Jour. 62(6): 255. June 1922. 424.8 Am3

1207. Crane, J. E. Shipping comb honey. Amer. Bee Jour. 64(7): 332. July 1924. 424.8 Am3

1208. Dadant, C. P. Preparing colonies for shipment. Amer. Bee Jour. 60(12): 410. December 1920. 424.8 Am3

1209. Dodge, N. N. Clearing the track for honey. Gleanings 58(11): 702-707. November 1930. 424.8 G47

1210. Engle, C. S. Moving bees one thousand miles. Amer. Bee Jour. 61(7): 261-262. July 1921. 424.8 Am3

1211. Floyd, L. T. Another step with packages? Gleanings 56(3): 144-145. March 1928. 424.8 G47

1212. Hendricks, J. Trucking bees from the Gulf to the Yellowstone. Amer. Bee Jour. 69(6): 287-288. June 1929. 424.8 G47

1213. How to ship bees in refrigerator cars. Gleanings 48(7): 395. July 1920. 424.8 G47

1214. Kohn, E. Package bees a success. Gleanings 48(4): 205-207. April 1920. 424.8 G47

1215. Latham, A. Bees by parcel post; description of a new cage for sending bees by mail. Amer. Bee Jour. 60(3): 79-80. March 1920. 424.8 Am3

1216. Old-time method of shipping bees. Amer. Bee Jour. 60(9): 299. September 1920. 424.8 Am3

1217. Pering, Alfred H. Shipping queen bees outside mail bags. Amer. Bee Jour. 78(3): 119. March 1938. 424.8 Am3
Permission to ship package bees by parcel post without double wire screening has been given by the Post Office Department.

1218. Pettit, M. Shipping package bees. Gleanings 56(2): 78-82. February 1928. 424.8 G47

1219. Root, E. R. Honey by parcel post. Gleanings 52(8): 516. August 1924. 424.8 G47

1220. Root, E. R. How to ship bees from south to north; some other tricks worth knowing. Gleanings 49(5): 271-273. May 1921. 424.8 G47

1221. Root, E. R. Package bee industry. Gleanings 56(5): 290-292. May 1928. 424.8 G47

1222. Root, E. R. Shipping comb honey; how to pack small lots as well as car load lots to prevent breakage. Gleanings 50(9): 575-576. September 1922. 424.8 G47

1223. Smith, J. Package bees. Amer. Bee Jour. 60(3): 80-81. March 1920. 424.8 Am3

1224. Smith, J. Shipping queens long distance. Gleanings 56(7): 443-444. July 1928. 424.8 G47

1225. Stabe, H. A. Viewpoint of Southern package bee shippers. Iowa. State Hort. Soc. Trans. (1925)60: 337-338. Des Moines. 81 Io9
Types of packages and rules governing their shipment are discussed.

1226. Stiles, E. P. Moving bees to a new spot. Amer. Bee Jour. 60(8): 270. August 1920. 424.8 Am3

1227. Van Halterm, F. Extracted honey by parcel post. Amer. Bee Jour. 64(7): 333. July 1924. 424.8 Am3

1228. Whitman, T. D. Bees shipped in pound packages. Gleanings 48(1): 22-23. January 1920. 424.8 G47

Livestock, Meats and Wool

General

1229. Ahart, J. Leo. Marketing livestock by truck. A fast growing practice that lowers shrinkage and facilitates shipping in small lots. Field Illus. 38(4): 20, 56, 58. April 1928. 42.8 Sp6

1230. American national livestock association. Before the Interstate commerce commission. American national livestock association v. Atchison Topeka & Santa Fe Ry. co. et al. I.C.C. docket 15686...submitted in behalf of Western railroads, by L. E. Wettling, manager Statistical bureau - Western lines, Exhibits no. 317, 54, 53, 51. Chicago [1925] 40 Am34B
These exhibits include statistics relating to live stock (cattle and calves, hogs, sheep and goats); receipts, shipments, freight charges and prices.

1231. Ashby, Robert Childers. Live stock transportation - truck vs. rail. Chicago Producers Comm Assoc. Collect. of Papers at Annual Meeting (1929)7: 20-22. [Chicago] 49.9 C432

1232. Ashby, Robert Childers. Livestock trucking by Illinois shipping associations. Ill. Agr. Expt. Sta. Circ. 331, 27pp. Urbana [1928]
"Fifteen Illinois cooperative livestock shipping associations are reported to have attempted livestock trucking service. Of these fifteen associations three were unsuccessful in trying to render this kind of service, eight reported success, and the other four associations have only recently begun to use trucks...
"Association trucking has proved successful only where it has been supplied at very reasonable rates..." - Summary.

1233. Ashby, Robert Childers. Practices and problems of cooperative livestock shipping associations in Illinois. Ill. Agr. Expt. Sta. Bull. 331, pp. 351-372. Urbana, 1929.

Discusses the accomplishments of these associations, the volume of business done by them, their operation and management, and some of their problems.

1234. Blaine, Charles E. Traffic and transportation. Producer 13(4): 23-25. September 1930. 49 P94
Lists court decisions, decisions of the Interstate Commerce Commission, etc., relating to the livestock industry.

1235. Buechel, Frederick Anthony. The commerce of agriculture: a survey of agricultural resources. 439pp. New York, J. Wiley & sons, inc.; London, Chapman & Hall, ltd., 1926. (The Wiley agricultural series) 278 B86
References at end of chapters.
Beef-transportation and refrigeration, pp. 212-213.

1236. Carlson, T. A. Shipping crates for livestock. Crate construction need no longer be a matter of guesswork. Hoard's Dairyman 76(19): 676. Oct. 10, 1931. 44.8 H65

1237. Carroll, Joseph M. Trucks bring much stock to market. Better than railway service for short hauls. Orange Judd Farmer 68(6): 262. Feb. 7, 1920. 6 Or1
Discusses motor truck hauling to the Chicago market and its increase.

1238. Casement, Dan D. Over the Rockies on a stock train. Breeder's Gaz. 81(2): 39-40. Jan. 12, 1922. 49 B74
"A vivid account of a ranchman's recent journey, in which remembered conditions and practices of 'the good old days' are contrasted with the facts of haulage on rails today."

1239. Clemen, Rudolf A. Waterways in livestock and meat trade. Amer. Econ. Rev. 16(4): 640-652. December 1926. 280.8 Am32
Waterways have exerted a profound influence on the development of the livestock and meat trade of the United States. This article discusses the part played by the Erie Canal, the canals of the Central States, the Ohio River, and water routes to the Northwest. Discussion is included of the effect of the canals on agricultural prices, and of water routes and the rise of Illinois packing.

1240. Colorado State farm bureau, inc. Trucking livestock. Bur. Farmer (Colo. ed.) 5(1): 17, 23. September 1929. 280.82 B89
Resolution adopted by the Colorado Stock-Growers Association as to the regulation of livestock transportation by truck.

1241. Cross, James G. Memorandum for officials of transportation lines for reporting to the livestock office Chicago United States Department of agriculture. Carload shipments of livestock received at Union stock yards Chicago, Illinois. 6pp., processed. Washington, D. C., U. S. Dept. of agriculture, Bureau of agricultural economics, Division of crop and livestock estimates, May 1, 1930. (Transportation circular LSM-24) 1.9 Ec713Mem

1242. Downing, James E. Pioneer transportation for live stock. Breeder's Gaz. 80(8): 249-250. Aug. 25, 1921. 49 B74

In the "old days" farmers and dealers drove beasts and poultry to markets - Later, crude railway cars hauled and damaged their animals - and still shippers execrate the railroads!

Describes the transportation of live stock before adoption of Federal and State laws which "required that live stock en route to market should be unloaded and given five hours of rest with feed and water after having been on the cars continuously for 28 hours..."

1243. Duck, R. W. Shipping and selling livestock. Rural New Yorker 93(5295): 416. May 26, 1934. 6 R88

Includes discussion of shrinkage in transit and loading and shipping.

1244. Duddy, Edward A. The potential supply area of the Chicago livestock market. Jour. Farm Econ.13(3): 410-425.July 1931. 280.8 J822

The general law of market areas is formulated as follows:

"'The boundary line between the territories tributary to two geographically competing markets for like goods is a hyperbolic curve. At each point on this line the difference between freights from the two markets is just equal to the difference between the market prices, whereas on either side of this line the freight difference and the price difference are unequal. The relation of prices in the two markets determines the location of the boundary line: the lower the relative price, the larger the tributary area."

The competing markets for which price differentials over or under Chicago were computed were Omaha, East St. Louis, St. Paul, Kansas City, St. Joseph, Sioux City, and Denver.

1245. Erie builds large modern livestock station at East Buffalo. New facilities, which have been provided solely for feeding and resting stock in transit, incorporate many special features. Railway Age 86(19): 1090-1094. May 11, 1929. 288.8 R136

1246. Fenn, F. W. Motor trucks haul stock to markets. Last year 6,000,000 cattle, hogs and sheep were shipped at small expense and with ample despatch in rubber-tired cars from cornbelt farms and feedlots to stockyards. Breeder's Gaz. 79(19): 857. May 12, 1921. 49 B74

1247. Firestone ship by truck bureau, Akron, Ohio. Marketing live stock by motor truck. Firestone Ship by Truck Bur. Bull. 8, 43pp. Akron, Ohio, 1921. 288.9 F51

Stock movement by trucks (driven-in receipts 1917-1920 at St. Joseph, Mo., Omaha, Cincinnati, and Indianapolis for hogs, sheep and calves) is given; truck and railroad rates are compared; advantages of the truck to the farmer are listed; and the future of the truck in marketing live stock is discussed.

1248. Fitzgerald, Dennis Alfred. Statistics of livestock marketing and livestock trucking in Iowa in 1931. Iowa Agr. Expt. Sta. Circ. 136, 16pp. Ames, April 1932.

"This circular contains statistics relating to: (I) The marketing of Iowa livestock, (II) the marketings of Iowa livestock by truck, and (III) miscellaneous statistics on (a) the stocker and feeder movement of cattle, calves and sheep into Iowa, (b) the semiannual Iowa pig surveys and their relation to subsequent marketings, and (c) receipts of Iowa cattle by grades at Chicago."

1249. Fitzgerald, Dennis Alfred. Statistics of livestock trucking in Iowa. Iowa Agr. Expt. Sta. Circ. 128, 8pp. Ames, May 1931.

"This report...is made possible thru the cooperation of the four public markets, 14 packing plants and 29 concentration points that receive Iowa livestock by truck. All these markets report the number of hogs they receive by truck yearly, and the four public markets and six packing plants receiving other species of livestock by truck reported on the numbers of cattle, calves and sheep that they had received in this manner since 1930. This year for the first time preliminary tabulations on truck receipts of species of livestock other than hogs are included."

1250. Four-footed transatlantic passengers. Sci. Amer. 126(4): 240. April 1922. 470 Sci25

This is a description of a live stock steamer and its facilities.

1251. Freehoff, W. A. How to ship live stock by express. Hoard's Dairyman 63(2): 36. Jan. 27, 1922. 44.8 H65

Describes the crates and the care that should be used.

1252. Gittens, Bert S. Shipping by truck. Breeder's Gaz. 94(5): 26-27. May 1929. 49 B74

Describes the development of shipping livestock by truck and its advantages over other forms of transportation.

1253. Gittens, Bert S. The short cut to market. Successful Farming 27(1): 13, 77. January 1929. 6 Su12

The advantages of truck transportation of livestock to market are set forth.

1254. Gray, Chester H. Transportation problems. Amer. Cattle Prod. 20(10): 11. March 1939. 49 P94

Summary of address at convention of American National Live Stock Association, San Francisco, Calif., Feb. 16, 1939.

Advocates the least possible amount of Government control as in the best interests of the live-stock producer and shipper.

1255. Green, M. E. Farm truck pays its way. Successful Farming 27(8): 9, 59. August 1929. 6 Su12

Savings in hauling livestock to market by truck are listed.

1256. H., C. L. More about the zone system. Breeder's Gaz. 78(12): 506. Sept. 16, 1920. 49 B74

Gives figures to supplement S. W. Doty's case in favor of the zone system, as presented in the Breeder's Gazette of July 8.

1257. Harris, J. L. Live stock transportation charges and regulations...Amer. Inst. Agr. Marketing Live Stock Lesson 11, 24pp. Chicago, 1923. 280.3 Am34L

The study outline includes: How freight is figured on live stock; Shipping mixed carloads; Special privileges allowed in shipping live stock; Privileges allowed on cattle shipments; Privileges allowed on sheep shipments; Care of animals in transit.

1258. Hayes, Glenn G. The zone system as a stabilizer. Breeder's Gaz. 78(6): 209-210. Aug. 5, 1920. 49 B74

Discusses the zone system pro and con as a stabilizer of the live stock market.

1259. Henning, George F. The influence of the truck in marketing Corn Belt livestock. Jour. Farm Econ. 13(3): 376-392. July 1931. 280.8 J822

Paper read at 21st annual meeting of the American Farm Economics Association, Cleveland, Ohio, December 1930.

"...Here is a force vitally affecting our livestock marketing system, making it completely over here and modifying it elsewhere. It would seem that the sensible thing for those interested in marketing livestock is to aid, regulate, and influence this economic force rather than to oppose it; to study it, analyze it, see where it can aid and thus utilize it for the greatest economic benefit."

1260. Henning, George F. Motor transportation of livestock in Ohio. Ohio Agr. Expt. Sta. Bull. 531, 38pp. Wooster, December 1933.

The bulletin discusses the Type of trucks operated by livestock truckers; Classification of truckers transporting livestock; Kind of truckers operating; Type of loads hauled by truckers; Origin of loads; Destination of livestock trucked; The handling of livestock by livestock truckers; Cost of operating livestock trucks; Rates for trucking livestock; Rates for hogs, cattle, calves, sheep and lambs to terminal markets.

Four areas were studied - One in the Cincinnati territory, two in the Cleveland territory, and one in rail territory midway between the two.

1261. Henning, George F. The origin of livestock and distance transported by truck to Cleveland from Ohio. Ohio Agr. Expt. Sta. Bimonthly Bull. 19(167): 78-81. Wooster, March-April 1934.

Table 1. - The number and percentage of livestock trucked to Cleveland, by zones of 10 miles, for January, April, July, and October, 1932. Table 2 gives the same information for October in 1922, 1928, and 1932.

1262. Henning, George F. The truck and its relationship to livestock marketing in Ohio. Ohio Agr. Expt. Sta. Bull. 440, 45pp. Wooster, August 1929.

The outstanding growth of livestock trucking is pointed out and its advantages are discussed.

Rates paid by livestock producers for trucking livestock, pp. 19-23. Tables show railroad carload rates per hundredweight for transporting livestock in the State of Ohio during the year 1929; and rates per hundredweight for trucking hogs to Cincinnati and Cleveland during the first three months of 1929.

Terminal expenses of marketing livestock delivered by railroad and truck are discussed on pp. 23-25.

1263. Henning, George F. Trucking, a new phase of livestock marketing. Amer. Inst. Coop. Amer. Coop. 1930, v. 2, pp. 212-220. Washington, D. C. 280.29 Am3A

The influence of the truck in the marketing of livestock and some of the changes that are taking place because of it are described. Statistics show the amount of livestock trucked to seven terminal markets for the years 1920, 1928 and 1929. Cites studies to show that costs are greater for livestock delivered by truck than for that delivered by rail, due to higher yardage and commission charges on truck-delivered livestock. The cities studied were Chicago, East St. Louis, and Peoria, Illinois.

1264. Hibbs, Ben. Are the railroads licked? Hope for the steam carriers in new types of service and equipment. Country Gent. 102(9): 14-15, 40. September 1932. 6 C833

A new livestock shipping plan, established by the Wabash Railroad, is described.

1265. Hill, W. W. How to ship livestock. The way to load, forward, and mark your animals. Banker-Farmer 7(9): 13-14. August 1920. 284.28 B22

1266. Hitchborn, C. H. Railroad livestock traffic dwindles. Motor trucks gaining in competitive struggle - Need for strong measures emphasized - Wabash "any quantity" rate looks promising. Railway Age 92(26): 1056-1058. June 25, 1932. 288.8 R136

"That the equivalent of 300,000 carloads of livestock, or 31.39 per cent of the total receipts, was trucked into the 15 principal terminal markets of the vast livestock-producing agricultural area of the Middle West in 1931, is a matter of more than passing interest to officers of the markets concerned."

1267. Hulbert, H. H. The effect of trucking on local and terminal livestock marketing. Amer. Inst. Coop. Amer. Coop. 1931, v. 2, pp. 29-46. Washington, D. C. 280.29 Am3A

Discusses the effect of trucking on the individual, on the local livestock shipping association, and on terminal marketing.

"The decline of the shipping association, the increase in trucking and the decentralization of slaughter makes it of paramount importance today for livestock producers everywhere to unite in a national program." - Conclusion.

1268. Jenny, Gerald. Trucking-by-radio. This prairie farmer has learned to seize time by the forelock: he uses hard roads and five tubes to beat the livestock market. Breeder's Gaz. 93(7): 12. July 1928. 49 B74

Describes how Lee Mosher of De Kalb Co., Ill., keeps in touch with the markets by radio, then hires the services of professional livestock haulers.

1269. Johnson, E. C., and Warrington, S. T. Cooperative trucking of livestock. Minn. Univ. Agr. Ext. Div. Farm Business Notes no. 160, pp. 1-3, processed. University Farm, St. Paul, 1936. 275.29 M663

Cooperative livestock trucking associations in Minnesota are described.

1270. Johnson, E. C., and Johnson, E. A. Trucking livestock to South St. Paul. Minn. Agr. Expt. Sta. Bull. 278, 31pp. University Farm, St. Paul, June 1931.

This analysis of the livestock trucked to South St. Paul is based upon records of the Union Stock Yards Company and livestock commission agencies in South St. Paul, from railroads and from operators of trucks.

The bulletin discusses the Amount of livestock trucked; the South St. Paul trucking area; length of haul and size of loads; seasonal variations in truck receipts; losses due to dead and crippled animals; rates for trucking livestock; comparison of costs of shipping livestock by truck and by rail; illustrations of costs; convenience of the truck in marketing livestock; and the effect of trucking on cooperative shipping associations. Maps and tables are included.

A brief account of the results of this study appears in the Journal of Farm Economics, v. 14, no. 1, pp. 156-157 under title "A Comparison of Prices of Hogs Arriving by Truck and by Rail at South St. Paul."

1271. Johnson, E. C., and Johnson, E. A. Trucking livestock to the South St. Paul market. Minn. Univ. Agr. Ext. Div. Minn. Farm Business Notes no. 95, 4pp., processed. University Farm, St. Paul, 1930. 275.29 M663

Figures show the percentage of livestock arriving by truck; average length of haul; sources of truck receipts and size of loads; changes in size of average loads; and rail rates and truck rates from representative Minnesota towns to South St. Paul.

1272. Jones, Walter B. Planning profits for the farm motor truck. Power Farming 29(12): 22-23, 28. December 1920. 58.8 T41

Profits in hauling livestock to market are discussed.

1273. Knapp, Joseph G. Chicago livestock transportation arrangements, I-II. Univ. Jour. Business 3(1): 68-81. December 1924; (2): 188-197. March 1925. 280.8 Un3

This is a description of the methods whereby stock is shipped from country shipping stations to the Chicago market. It includes discussion of I. Shipping arrangements; II. Operating arrangements; III. Receiving arrangements; IV. Miscellaneous arrangements; V. Livestock rates; and VI. Charges for services.

1274. Leavitt, Charles T. Transportation and the livestock industry of the Middle West to 1860. Agr. Hist. 8(1): 20-33. January 1934. 30.98 Ag8

"The influence of the three major improvements in transportation on the livestock industry of the Middle West during the pre-Civil War era, namely, the development of steamboats, the completion of the Erie and Ohio canals, and the connection of the Middle West with the East by railroads is the theme of this paper. Since the livestock industry as a whole did not exhibit the striking advances or changes which took place in grain raising as a result of these improvements, the extent of their influence and the reasons why their influence was not greater must be examined..."

1275. McCarthy, W. Railroads and livestock. Amer. Cattle Producer 19(9): 16-18. February 1938. 49 P94

Not seen.

1276. Meiks, Scott. Possibilities of controlling livestock trucking through regional or terminal associations. Amer. Inst. Coop. Amer. Coop. 1931, v. 2, pp. 54-64. 280.29 Am3A

Discusses the truckman as customer contact and says that cooperation is still on trial and that intelligence and business ethics will aid in the solution of the problem.

1277. Meredith publishing company, Bureau of market analysis. Motor trucks in the livestock industry. A study of present conditions. 46pp., processed. Des Moines, Ia., 1928. 289.4 M542

"This report...is based upon information furnished by the managers of the various public stockyards and by packing house officials ..." It includes discussion of motor trucks versus railroads; and the advantages of shipping livestock by trucks.

Supplements issued in 1930 and 1932.

1278. Metcalfe, H. J. Motor trucks as aid to stockmen. Thousands of cattle, hogs and sheep, and tons of farm produce are moved in trucks to market in Iowa and other States, thereby appreciably offsetting the present inadequacy of railway transportation - With hard-surfaced roads there will come a new era in farm freight haulage. Breeder's Gaz. 78(3): 98. July 15, 1920. 49 B74

1279. Motor trucks aid stock shippers. Thousands of cattle, hogs and sheep are hauled every week-day from feedlot and pasture in rubbertired fleets, which farmers welcome as supplements to railroads in moving animals, crops and produce to market. Breeder's Gaz. 78(22): 1097. Nov. 25, 1920. 49 B74

1280. Motor trucks reduce live stock shrinkage losses. Swine World 15(8): 3, 5. April 1928. 46.8 Sw62
Evidence is presented to show the increasing popularity of the motor truck in transporting live stock and the corresponding reduction in shrinkage losses.

1281. Motts, G. N. Motor truck marketing of Michigan livestock. Mich. Agr. Expt. Sta. Spec. Bull. 235, 28pp. East Lansing, May 1933.
"It is the purpose of this study to describe the present status of motor truck marketing of Michigan livestock, with particular reference to the following phases of the subject: (1) the growth and present scale of motor truck movements of Michigan livestock; (2) the place which the farmers, shipping associations, dealers and truckers occupy in the motor transportation of livestock; (3) the methods of operation of the livestock truckers; (4) the advantages and disadvantages of motor truck transportation to each of the marketing groups; and (5) an analysis of suggested changes in the motor truck marketing of Michigan livestock with certain recommendations."

1282. Mullins, C. B. Taking a truck to market. Shipping of livestock by truck increases. Wallaces' Farmer and Iowa Homestead 54(14): 545. Apr. 5, 1929. 6 W15

1283. [National automobile chamber of commerce] National motor truck committee. The evolution of transportation. An argument for rural motor express. 12pp. New York, [1920] Pam. Collect. (Transportation)
Includes: Trucks haul hogs into markets of Omaha. Number carried increases more than 180 per cent, p. 7; Live stock by truck, pp. 7-11.

1284. National wool growers association. The rule on double-deck cars. Natl. Wool Grower 26(6): 6. June 1936. 45.8 N21N
A definite rule regarding substitution for double-deck cars has been laid down by the Interstate Commerce Commission. The carriers seek a relaxation of the general rule, by which they would allow themselves wide discretion in the furnishing of cars when unable to place the double-deck cars ordered by the shipper.

1285. Nourse, Edwin Griswold, and Robotka, Frank. Organizing and operating cooperative livestock shipping associations. Iowa Agr. Col. Ext. Bull. 85, rev. 16pp. Ames, 1924.

1286. Ohio farm bureau federation. Utility commission rules on casual private haulers. Bur. Farmer (Ohio ed.) 5(9): 13. May 1930. 280.82 B89

Gives the ruling of the Public Utilities Commission of Ohio in the case of certain farmers in Ohio who were also engaged in the transportation of livestock for the Fayette Producers' Association.

1287. Phillips, C. D. Marketing Kentucky livestock by motor truck. Ky. Agr. Expt. Sta. Bull. 344, pp. 193-231. Lexington, July 1933.
Marketing Kentucky livestock by motor truck is discussed under these headings: Extent of trucking in Kentucky; Trucking areas of terminal markets in Kentucky; Organization of the trucking business, some problems of livestock trucking; Why livestock producers patronize truck operators; Criticism of the use of the motor truck in the transportation of livestock to market; Trucking rates and marketing charges; Regulation of motor truck transportation; and Some economic aspects of shipping livestock by motor truck.

1288. Poole, James E. Get the quick livestock dollar. The rise of radio-trucking and how it helps get the high dollar, and the quick one, out of your feedlots. Breeder's Gaz. 96(5): 7. May 1931. 49 B74
The advance of livestock trucking at the big markets in the five years from 1925 to 1930 is shown by a table.
The beginnings of radio market reporting are described.

1289. Purebreds en route. Breeder's Gaz. 101(5): 18-19. May 1936. 49 B74

1290. Steward, C. B. The truck and the farmers live stock shipping associations. Bur. Farmer (Nebr. ed.) 8(3): 9-10. November 1932. 280.82 B89
The effect of truck transportation upon cooperative live stock shipping associations is discussed.

1291. Suggestions to live stock shippers. Natl. Stockman and Farmer 44(15): 469. July 10, 1920. 6 N21
Contains "Don'ts for shippers"; marking of stock; loading mixed cars; freight charge comparisons; and minimum weights according to length of cars.

1292. Thomsen, Frederick Lundy, and Fankhanel, W. R. Livestock trucking in Missouri. Mo. Agr. Expt. Sta. Bull. 317, 20pp. Columbia, September 1932.
Discussion is included of truck receipts at terminal markets; regional differences in trucking in Missouri; why trucking has increased; and problems resulting from increase in trucking.
Cost of marketing by truck and rail includes discussion of factors affecting truck rates; comparison of truck rates by species and markets; change in truck rates from 1930 to 1931; rail rates; and total costs of marketing.

1293. Transporting live stock by motor truck. Close to seven million cattle, calves, hogs and sheep marketed by motor truck in 1926 - million and a half over previous year. Power Farming 36(9): 7. September 1927. 58.8 T41

1294. Trosper, E. J. Standard partition for mixed cars of live stock. Amer. Coop. Jour. 15(4): 42, 44. April 1920. 280.28 An3
"Live stock shippers have long felt the need of a standard practical partition to be used in shipping mixed cars. The Michigan State Federation of Co-operative Live Stock Shippers have, through their state manager, E. E. Compson, found a solution for the trouble in the form of a standard gate partition. Its advantages are set forth.

1295. Trucking livestock. Proportion of animals that are shipped on highways instead of rails continues increasing. Business Week no. 419, pp. 46-47. Sept. 11, 1937. 280.8 Sy8

1296. Two sides of the zone system. Does its application to the loading of live stock stabilize the market? Breeder's Gaz. 78(2): 55-56. July 8, 1920. 49 B74
S. W. Doty presents the positive side of the argument while J.E.P. presents arguments against the system.

1297. U. S. Congress. Senate, Committee on interstate commerce. Special contracts to furnish cars for loading with livestock. Hearing...69th Cong., 2d. sess., on S. 4923, a bill to amend the Interstate commerce act, as amended, in respect of special contracts to furnish cars for loading with livestock. February 1, 1927. 22, 23pp. Washington, U. S. Govt. print. off., 1927. 40 Un39
The amendment would make it lawful for any common carrier to contract to furnish shippers at a specified time cars for loading with livestock.
Opposition to these bills was voiced by representatives of the railroads.

1298. U. S. Department of agriculture, Bureau of agricultural economics. Cooperative livestock shipping associations. U. S. Dept. Agr. Farmers' Bull. 1502, 27pp. Washington, D. C., 1926. 1 Ag84F
Suggested form of by-laws for cooperative livestock shipping associations.

1299. U. S. Department of agriculture, Bureau of agricultural economics, Division of livestock, meats and wool. Driven-in receipts of livestock for the years 1929-1938. processed. Washington, D. C. 1.9 Ec713Dr

1300. U. S. Department of agriculture, Bureau of animal industry. Regulations governing the interstate movement of livestock, effective on and after May 1, 1928. U. S. Dept. Agr., Bur. Anim. Indus. B.A.I. Order 309, 24pp. Washington, D. C., 1928. 1 An50
Amendment 1, 1p.

1301. U. S. Department of agriculture, Bureau of animal industry. State sanitary requirements governing admission of livestock. U. S. Dept. Agr. Misc. Circ. 14, 133pp. Washington, D. C., 1936. 1 Ag86Cm
First issued in 1924; Revised 1930 and 1932.
Requirements of each State and territory are given.

1302. Weights on country-to-country shipments. Editorial. Amer. Cattle Prod. 17(10): 12. March 1936. 49 P94
Shippers resent the haphazard methods of obtaining weights of live stock. Tariff weighing rules carry a penalty of 10 per cent where weights are not obtained even though the railroads do not have adequate facilities for obtaining weights. This rule was modified upon protest of the American National Live Stock Association.

1303. Weld, L. D. H., Kearney, A. T., and Sidney, F. H. Economics of the packing industry. Part I - History and organization...Published by the Institute of meat packing, the University of Chicago, and the Institute of American meat packers in cooperation. 221pp., processed. Chicago, The University of Chicago, 1925. 50 C43
This is a course of 10 lessons. Lesson IX deals with the transportation of meats as follows:
A. Special equipment necessary in transporting livestock and meats; B. History of packer ownership of refrigerator cars; C. Refrigerator car earnings; D. The question of discrimination in packer ownership of refrigerator cars; E. Freight rates on packinghouse products.

1304. Wendt, Basil S., and Hedges, Harold. Truck and rail transportation of Nebraska livestock to the Omaha market. Nebr. Agr. Expt. Sta. Bull. 275, 31pp. Lincoln, October 1932.
Partial contents: Growth of livestock trucking; Origin of truck and railroad receipts; Livestock truckage rates to Omaha (factors determining, and changes since August 1930); Factors influencing the choice of the means of transportation (comparison of truck and rail rates, influence of grades of highways and of rail connections, terminal differentials, etc.); and A comparison of truck and rail transportation costs.

1305. Yards selling charges start skyward. Live stock commission firms make heavy increase in rates. Orange Judd Farmer 68(33): 1202. Aug. 14, 1920. 6 Or1
The new rates provide for higher commissions on less than carloads of different classes.

1306. Zwemer, R. A. Protective pointers for live stock shippers. Dakota Farmer 40(12): 1241-1243. June 15, 1920. 6 D14
Speech before the Bureau of Markets Short Course, Feb. 25, 1920.
Discusses ordering the car, substitution of cars, loading for the lowest rates, rules for mixed loading, etc.

Freight Rates*

1307. American national live stock association. Fifteen per cent increase denied. Editorial. Producer 13(6): 11-12. November 1931. 49 P94
This decision was a victory for live stock producers since they were exempted from paying any additional rates.

1308. American national live stock association. The reconsignment privilege. Producer 14(4): 11-12. September 1932. 49 P94
A discussion of the reconsignment privilege at the through rate, when change of ownership occurs at an intermediate market. This issue was not settled by Docket no. 17000.

1309. Ashby, Robert Childers. Livestock truckage rates in Illinois with a comparison of marketing expense by truck and by rail. Ill. Agr. Expt. Sta. Bull. 342, pp. 119-175. Urbana, 1930.
"This study of truckage rates in Illinois is based on data derived from analysis of more than 39,000 actual account sales, covering more than 155,000 head of livestock trucked in to the three Illinois terminal markets, Peoria, East St. Louis, and Chicago, in 1927 and December, 1928."
Topics discussed include: Factors determining truckage rates; Comparison of truck and freight rates; Origins of trucked-in receipts; Changes in truckage rates; Comparison of net marketing expense by truck and by rail; and trend of truckage rates.

1310. Carey, Robert D. Agricultural freight rates. Bur. Farmer (Wyo. ed.) 3(12): 13-14. August 1928. 280.82 B89
Gives the results of investigations as to the livestock industry in Wyoming and as to freight. Mr. Carey found that freight rates in Wyoming were higher than rates in other States.

1311. Carroll, Joseph M. Refund coming to shippers. Loading and unloading charge repudiated by I.C.C. Swine World 8(3): 8. Aug. 20, 1920. 46.3 Sw62
Since May 21, 1917 livestock shippers had been paying 25 cents per car for loading and unloading stock at the Chicago stock yards.

1312. Chase, Frank M. Stockmen oppose freight increase. Breeder's Gaz. 77(22): 1471. May 27, 1920. 49 B74
"Prompt action recently was taken by the National Live Stock Shippers' League to oppose the proposed increases which, on the western railroads, would amount to raising the present rates approximately 23.91 percent..."

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*See also Freight rates under General Transportation; Agricultural Commodities - General, Dairy Products, Fruits and Vegetables, Fruits, Grain; Railway Transportation; Ocean Transportation; also Trucking Rates under Highway Transportation

1313. Colorado State farm bureau, inc. Some local freight rate problems; Colorado public utilities case number 320. Bur. Farmer (Colo. ed.) 7(2): 11. October 1931. 280.82 B89

The Farm Bureau has joined with the Colorado Wool Growers and the Colorado Stock Growers and Feeders Association and others in an effort to prevent a 15 percent increase on live stock rates asked for by the Denver & Rio Grande Western Railroad.

1314. Cowan, Sam H. Western live-stock rates and Hoch-Smith resolution. Producer 7(4): 15. September 1925. 49 P94

Deplores the claim of the railroads to an advance of 11 per cent on live stock rates under the Hoch-Smith resolution.

1315. Downing, James E. Cutting the carrying cost. Some ways of taking up the slack in livestock transportation. Successful Farming 20(10): 18, 62-63. October 1921. 6 Su12

1316. Finds livestock rates low. Recommends that complaint asking restoration of pre-war rates be dismissed. Railway Age 79(11): 484-485. Sept. 12, 1925. 288.8 R136

"Dismissal of the complaints filed by the American National Livestock Association and others, asking a restoration of pre-war rates on livestock throughout the west and some other changes, and a finding that the present rates are not unreasonable, are recommended to the Interstate Commerce Commission in a tentative report proposed by W. A. Disque, attorney-examiner, made public on September 5..."

A portion of the Complaint of the American National Livestock Association is included.

1317. Freight rates on feeders and stockers. Natl. Wool Grower 28(11): 5-6. November 1938. 45.8 N21N

Discusses the hearing held at Salt Lake City, October 24-28, 1938 by the Interstate Commerce Commission on the railroads' application which, in effect, would do away with the present 85 per cent basis of freight rates on feeder and stocker livestock.

1318. Gray, Carl R. Railroad rates. Amer. Natl. Live Stock Assoc. Proc. (1924)27: 147-157. 49.9 Am35

The attitude of the railroads in regard to rates especially as they concern the live stock industry is discussed.

1319. Harding, Frank W. Purebreds at half rate. Breeder's Gaz. 92(29): 25, 29. November 1927. 49 B74

"The Breeder's Gazette has suggested that the American Shorthorn Breeders' Association is responsible in great measure for the action taken by the railroads...to grant reduced rates for shipments in less than carload lots of registered cattle and horses, chiefly valuable for breeding purposes. I am desirous of giving recognition at this time for the vast amount of assistance and good work already to the credit of the railroads in this matter..."

1320. Herbert, Jerome. Your fight for lower freight rates. Bur. Farmer 4(2): 8. October 1928. 280.82 B89

"Railroads of the United States handle each year approximately one and one-half million carloads of livestock of which 90 per cent originate in the western territory where the rate reduction fight will affect them. The reductions sought range from $3 to $15 a car and, striking an extremely conservative average, at least $8,000,000 a year would be saved livestock farmers."

1321. Illinois agricultural association. Seek higher livestock rates. The truth about the carriers 2.37 per cent testimony. Bur. Farmer (Ill. ed.) 3(7): 22. March 1928. 280.82 B89

At a hearing in Chicago before the Interstate Commerce Commission, the carriers offered evidence to show that freight rates on livestock amounted to only 2.37 per cent of their sales value at the terminal markets. This evidence was refuted by C. A. Stewart, secretary of the National Livestock Producers.

1322. Laney, J. Carl. Live stock freight rates vs. free and competitive markets. Bur. Farmer (Wash. ed.) 7(2): 9-11. October 1931. 280.82 B89

Shows that the trend of rates favors the big packers and that live stock men lose by lower rates on fresh meat and packing house products.

Long haul vs. short haul is discussed.

1323. Long, C. S. Livestock freight rates reduced. Bur. Farmer (Ohio ed.) 4(1): 18. September 1928. 280.82 B89

Livestock freight rates were reduced on an average of 12 per cent in territory east of the Mississippi River, as the result of a decision of the Interstate Commerce Commission.

1324. Madigan, John J. Securing lowest total freight costs in movement of packing house products. Harvard Business Rev. 15(3): 352-360. Spring 1937. 280.8 H262

"The following pages describe briefly an analysis made to solve certain problems faced by Armour and Company in attempting to ship meat products from producing plants to areas of consumption at the lowest total freight cost. The entire analysis shows the interrelationship of transportation, sales, and production, and the strong necessity for close coöperation between these divisions of a large corporation in order to achieve desired economies..."

1325. Meredith again hits commission men. Orders drastic reduction in rates for handling live stock. Orange Judd Farmer 68(35): 1256, 1270. Aug. 28, 1920. 6 Or1

1326. National wool growers association. The Association's representations in the freight rate structure investigation. Natl. Wool Grower 16(5): 15-16. May 1926. 45.8 N21N

A discussion of the brief which set forth the objections of the

National Wool Growers Association to the increase in freight rates on live stock, as proposed by Western carriers.

1327. National wool growers association. Decision on westbound freight rates on meats. Natl. Wool Grower 25(8): 13. August 1935. 45.8 N21N
This was a "petition of 18 packers from as far east as Buffalo to Ogden and from Fort Worth to St. Paul for a lowering of rates on meats and packinghouse products to the Pacific Coast and intermediate points..."
The petition was denied.

1328. National wool growers association. Freight rate case. Natl. Wool Grower 17(7): 12. July 1927. 45.8 N21N
A discussion of hearings on live stock rates before the Interstate Commerce Commission at Salt Lake City on June 30, 1927.

1329. National wool growers association. Hearings on live stock freight rates. Natl. Wool Grower 17(6): 13-14. June 1927. 45.8 N21N
"The announcement of a series of hearings in the West upon livestock freight rates has been made by the Interstate Commerce Commission. The rates to come under consideration include all those west of Chicago, with regard both to market movements and to movements between ranges and from ranges to feed lots..."
The National Wool Growers Association was to be represented.

1330. National wool growers association. Hearings on proposed freight rate increase. Natl. Wool Grower 21(9): 8-9. September 1931. 45.8 N21N
A brief review of the hearings held during August 1931 to consider the 15 per cent raise in freight rates asked for by the carriers.

1331. National wool growers association. I.C.C. examiners opposed to lower freight rates on westbound meats. Natl. Wool Grower 24(7): 20. July 1934. 45.8 N21N
Recommendations were that the freight rates in effect be continued, except for certain rates in effect from Butte, Montana and Spokane, Washington.

1332. National wool growers association. I.C.C. hearings on opening of Butte gateway. Natl. Wool Grower 26(5): 10. May 1936. 45.8 N21N
These were hearings on the case which was instituted to restore through rates on shipments of livestock from Montana points through Ogden and Salt Lake to California destinations.

1333. National wool growers association. Interstate commerce commission defers action on lower rates for live stock in the West. Natl. Wool Grower 16(6): 12. June 1926. 45.8 N21N
The case in which the American National Live Stock Association and the National Wool Growers Association "sought relief from unduly high rates charged in many cases for shipment of livestock from one

range to another or from ranges to feed lots, when the use of two or more railway lines is necessary" was dismissed by the Interstate Commerce Commission.

1334. National wool growers association. Livestock freight rate case. Natl. Wool Grower 19(10): 17-18. October 1929. 45.8 N21N
A review of the hearings on live stock rates and especially of the final argument, which was presented October 1 to 4, 1929.

1335. National wool growers association. Livestock freight rates. Railroads ask higher rates - Wool Growers ask reduced rates and lower car loading rates. Natl. Wool Grower 18(3): 12-13. March 1928. 45.8 N12N
An account of hearings at Chicago, which were re-opened on February 6.

1336. National wool growers association. Livestock freight rates reduced in Eastern States. Natl. Wool Grower 18(9): 12. September 1928. 45.8 N12N
"A reduction which averages about 12 per cent has been ordered into effect by the Interstate Commerce Commission to apply on shipments of live stock moving eastward to Atlantic seaboard points from Chicago and points in the Eastern States.
The decision was rendered on July 14,1928.

1337. National wool growers association. New freight rates. Natl. Wool Grower 22(8): 6. August 1932. 45.8 N21N
Describes some of the reductions in livestock freight rates in the territory west of Chicago.

1338. National wool growers association. New truck rates. Natl. Wool Grower 26(10): 7. October 1936. 45.8 N21N
A discussion of the fixing of truck rates under the Motor Carriers Act of 1935. The rates proposed cause deep concern to shippers who have been moving livestock and other freight by public truck lines.

1339. National wool growers association. The sale-in-transit case. Natl. Wool Grower 23(10): 6. October 1933. 45.8 N21N
The Interstate Commerce Commissioner who conducted hearings on the sale-in-transit case recommended a charge of $15 per car to be collected by the railroads in every case in which livestock changes ownership when it is reshipped under a through rate.

1340. National wool growers association. Sale-in-transit case decided. Natl. Wool Grower 24(1): 6. January 1934. 45.8 N21N
"The decision of the Commission rejects the examiner's plan of charging for use of the sale-in-transit privilege. The Commission finds that Denver, Ogden, and Salt Lake should continue to have the privilege to which the other markets and the packers objected. The railroads may either restore the sale-in-transit arrangement at the river markets or discontinue it at feeding stations on the routes to the markets..."

1341. Nevada. Public service commission. ...Before the Interstate commerce commission. Western livestock rates, Argument by J. F. Shaughnessy... on behalf of Nevada stock growers. 54pp. Washington, D. C., Oct. 13, 1932. 289.22 N41

Docket 17,000, part 9 (Reopened)

The argument is advanced that mining and live stock are the basic industries of Nevada. These industries are at the lowest level in history due to low prices, while freight rates are still on a war and post-war inflationary level.

The necessity for an immediate attempt to reduce freight rates to the level of what the livestock grower, the wheat grower and the cotton grower can afford to pay is stressed.

1342. Phelps, J. H. Sale-in-transit endangered. Natl. Wool Grower 22(7): 17-18. July 1932. 45.8 N21N

Discusses "the question of market privileges on livestock, or the right to sort, consolidate, change ownership, change destination or change routing on livestock shipments in transit on railroads and still retain the benefit of the freight rate applicable to the entire distance which the livestock travels." This, he says, is endangered by the Hoch-Smith resolution.

1343. Quasey, L. J. The livestock rate case. A review of events pertaining to the railroads' plea for a raise. Bur. Farmer (Ill. ed.) 3(8): 17. April 1928. 280.82 B89

1344. Rates and prices on livestock. Railway Age 82(20): 1193. Apr. 16, 1927. 288.8 R136

Freight rates and prices are given for cattle and calves, hogs, and sheep.

1345. Refund of $200,000 to live stock shippers. Interstate commerce commission rules on overcharges at Chicago yards. Orange Judd Farmer 68(33): 1202. Aug. 14, 1920. 6 Or1

1346. Sale-in-transit hearings. Producer 14(10): 23-24. March 1933. 49 P94

Discusses the hearings on the sale-in-transit or reconsignment-at-through-rate case, held at Denver from January 23 to February 9, 1933.

1347. South Dakota farm bureau federation. Farm bureau fights rate increase. Bur. Farmer (S. Dak. ed.) 3(10): 18. June 1928. 280.82 B89

Tells of the fight by the Farm Bureau against the attempt of Western railroads to have the Interstate Commerce Commission raise the freight rates on livestock.

1348. Thomsen, Frederick Lundy, and Fankhanel, W. R. Cost of marketing livestock by truck and rail. Mo. Agr. Expt. Sta. Research Bull. 165, 32pp. Columbia, March 1932.

"...Data on actual trucking charges, covering 3,223 shipments in 1930 and 1,837 shipments in 1931, were obtained from cooperative com-

mission companies at St. Louis, Kansas City, and St. Joseph...Data on local costs for rail shipments were obtained from 169 local association managers and railroad agents..."

Truck rates in 1930 show distance and rate, difference by markets, differences by species, variations from average, differences within communities, and differences between localities.

Rail rates in 1930 show rate per mile, and compare rail and truck rates.

The total costs of marketing in 1930; and changes in rates and total costs are shown.

1349. U. S. Interstate commerce commission. Livestock - Western district rates. Submitted October 4, 1929. Decided June 8, 1931. 193pp. [Washington, U. S. Govt. print. off., 1931] 168.1 [L]

At head of title: Interstate Commerce Commission reports. No. 17000. Rate structure investigation, Part 9.

With this are also Livestock, Southern Territory, Rates decided March 8, 1932; Western District rates, decided December 6, 1932; Western District rates, decided Apr. 9, 1934.

1350. Wyoming State farm bureau. The livestock rate hearings. Wyoming is much concerned and interested in the Hearings that have been conducted during the last year. Bur. Farmer (Wyo. ed.) 3(10): 15-16. June 1928. 280.82 B89

Loss and Damage in Transit*

1351. American national live stock association. Prevention of livestock losses. Producer 13(8): 13-14. January 1932. 49 P94

Decribes the progress made by the movement to cut down preventable live stock losses in transit.

1352. American railway express co., Dept. of public relations. Humane treatment of animals, through proper crating and handling, a fixed policy of the company. Amer. Ry Express Co. Bull. 19, 4pp. [n.p., n.d.]

Not seen.

1353. Baldwin, W. M. When stock goes to market. Protective pointers on loading and shipping. Successful Farming 19(5): 74, 119. May 1920. 6 Su12

1354. Blaine, Charles E. Shipping instructions for stock shipments. Amer. Cattle Prod. 19: 20-21. November 1937. 49 P94

Not seen.

1355. Brooks, F. S. How to ship live stock. Amer. Inst. Agr. Lessons. Marketing Live Stock no. 10, 36pp. Chicago, 1923. 280.3 Am34L

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*See also under Railway Transportation - Safety, Adequacy and Economy of Service

1356. Carroll, Joseph M. Bedding cars. Successful Farming 21(2): 54. February 1922. 6 Su12
Instructions as to proper bedding of livestock cars.

1357. Carroll, Joseph M. Bedding cars to avoid loss. Suggestions for spring and summer shipment. Orange Judd Farmer 68(23): 958. June 5, 1920. 6 Or1

1358. Carroll, Joseph M. Seek reduction of shipping losses. Dakota Farmer 40(8): 915-917. Apr. 15, 1920. 6 D14
Describes a conference, held in Chicago, for the purpose of formulating plans whereby the losses of livestock in transit might be reduced.

1359. Carroll, Joseph M. Why repeal the 28-hour law. Under present conditions it does more harm than good. Orange Judd Farmer 68(15): 718. Apr. 10, 1920. 6 Or1
The 28-hour law made it necessary to unload stock at the end of that period, unless the owner signed a release to 36 hours.

1360. Childs, Leslie. Loading live stock for shipment. Breeder's Gaz. 77(13): 823. Mar. 25, 1920. 49 B74
"When a shipper seeks to hold a railroad company liable to damage to live stock, which occurred during transit the question of who did the loading is frequently of much importance. Under the statutes of many states the railroad company is not liable for injury to stock, if it were caused by improper loading, which was done by the shipper."
The case of Illinois Central Railroad Co. vs. H. C. Rogers et al is cited as illustrative of this rule.

1361. Dowell, Austin A., and Eggert, R. J. Death and crippling in livestock marketing. Minn. Agr. Expt. Sta. Bull. 342, 40pp. University Farm, St. Paul, May 1939.
Literature cited, p. 40.
"Many factors influence the extent of losses from death and crippling that occur between the time the livestock is assembled for loading at the farm and the time it enters the packing plant. Chief among these are the type of transportation used, the season of the year, the species, class, and condition of livestock, and the care that is exercised in loading, transporting, unloading, and handling the livestock at the market and between the market and slaughtering plant..."
This study relates to the St. Paul market.

1362. Embree, W. J. Livestock shipping losses and some methods for preventing them. Amer. Vet. Med. Assoc. Jour. 60(n.s.v. 13)(5): 615-624. February 1922. 41.8 Am3
Read at the 58th annual meeting of the American Veterinary Medical Association, Denver, Colo., September 5-9, 1921.

Statistics are included showing losses of livestock in shipments received at principal markets. Suggestions for care and loading of livestock and especially of hogs are given.

1363. Gerlaugh, Paul. Feeding and handling livestock to prevent shrinkage and loss. Ohio Agr. Col. Ext. Bull. v. 21, no. 7, 8pp. Columbus, 1925-26. 275.29 O

Livestock, losses paid by railroads to shippers total a tremendous amount. Shipping losses are much greater on hogs than on other kinds of livestock. These losses are primarily due to death from suffocation and to cripple losses caused in most cases by using rations deficient in minerals. This bulletin offers suggestions to the producer that he may deliver his consignment to the railroad or market in good physical condition.

1364. Henning, George F. Losses in shipping Ohio livestock. Ohio Agr. Expt. Sta. Bull. 438, 80pp. Wooster, June 1929.

"...The Department of Rural Economics of the Ohio Agricultural Experiment Station cooperated with the Cleveland Union Stockyards Company in securing information which may aid the livestock industry of Ohio in reducing losses.

"It was thought at first to study the cause of losses and secure such information on the various factors as is evident at the time of unloading the cars at the stockyards. There are several other factors which contribute to crippled and dead animals, such as feeding, handling by marketing agencies at the farm and in the assembling at the stockyards and railroads, but none of these are included except as was evidenced at time of unloading."

The factors affecting losses are listed and recommendations made as to improvement of methods and conditions. Losses may be reduced through the cooperation of the livestock producer, the shipper, and the railroads.

1365. Humane live-stock car tested in service. Railway Age 93(20): 671-672. Nov. 12, 1932. 288.8 R136

"...the Palace Live Poultry Car Division of the North American Car Corporation has recently designed and built a double-deck stock car, intended to provide improved transportation facilities for the shipment of small animals, such as sheep and hogs."

1366. A humane livestock car. Provision for feeding and watering enroute - Partitions reduce piling and crippling. Railway Age 85(21): 1017-1018. Nov. 24, 1928. 288.8 R136

Describes a live stock car, recently designed and patented by I. V. Edgerton for the North American Car Corporation and built by the Standard Steel Car Company.

1367. Keep pounding away to reduce losses of stock in marketing. Many important problems discussed at Shippers' conference held in Chicago. Swine World 7(22): 59-60. June 5, 1920. 46.8 Sw62

The conference was held in March 1920.

1368. Kelsey, Ray T. Organize to prevent livestock losses. Livestock organizations and carriers seek to eliminate losses in transit. Ohio Farmer 155(22): 692. May 30, 1925. 6 Oh3
The organization of the Ohio Livestock Loss Prevention Association is described.

1369. Miller, A. W. Maintaining the health of livestock in transit. U. S. Dept. Agr. Leaflet 38, 8pp. Washington, D. C., 1929. 1 Ag84L
In addition to actual death, heavy losses result from poor condition of the animals, owing to disease, injuries, exhaustion, and derangement of the digestive processes. This bulletin lists ways of caring for livestock which prevent these conditions.

1370. Reed, Earle G. "Dead" and "crips" not so good. The elimination of waste is a definite national policy in industry. Here it is applied intelligently and resultfully to an important branch of agriculture. Breeder's Gaz. 93(6): 10, 46. June 1928. 49 B74
Describes the work of the Livestock Loss Prevention Association of Ohio and the events which led to its organization on May 9, 1925.

1371. Sellar, Robert F. Livestock loss prevention. Ed. 2, 25pp. Albany, N. Y., The American humane association [1935?] 40 Se4

1372. Shipping losses discussed. Important conference of all interests held at Chicago last week. Orange Judd Farmer 68(14): 677. Apr. 3, 1920. 6 Or1
This was the conference called by the National Live Stock Exchange.

1373. Troeger, L. E. To reduce losses through shipment. Recent conference makes suggestions to minimize loss. Swine World 7(18): 5-6. Apr. 5, 1920. 46.8 Sw62
This conference of livestock producers, representatives of the government, stock yards, commission firms, livestock traders and others, was held in Chicago, March 24 and 25, 1920.

Cattle

1374. Blaine, Charles E. Reasons for opposing rate increase. Amer. Cattle Prod. 19: 18. February 1938. 49 P94
Not seen.

1375. Hints on shipping calves by express. An outline of tests required and what should be done to insure safe shipment and delivery. Jersey Bull. and Dairy World 41(19): 1040. May 10, 1922. 43.8 J48

1376. Hopkins, John Abel, Jr. Economic history of the production of beef cattle in Iowa. 248pp. Iowa City, Ia., 1928. (Iowa Economic history series no. 8) 43 H772A
Also in Iowa Jour. Hist. & Polit. Sci. 22: 65-143, 204-294, 415-460. 1928.

The transportation system and its influence on the production of cattle, pp. 182-202.

1377. How to ship dairy cows. Calif. Cult. 57(1): 15. July 2, 1921. 6 C12
Valuable pure bred cows should be handled by express services, others by freight. 14 cows may be loaded in a 38 or 40 foot car. Suggestions as to feeding and handling are included.

1378. Pound, Robert T. Shrinkage in shipping cattle. Breeder's Gaz. 82(26): 910. Dec. 28, 1922. 49 B74
Describes experiences with shrinkage in shipping cattle from central Montana to Chicago and says it may be lessened by proper loading and proper methods of feeding shortly before shipping.

1379. Safford, Merle C. Reduced freight rates on pure breds. How to ship registered cattle for breeding. Guernsey Breeders' Jour. 29(8): 367. Apr. 15, 1926. 43.8 G93

1380. Shipping cows. Wallaces' Farmer 45(3): 192. Jan. 16, 1920. 6 W15
Information as to the handling of cows in transit obtained from prominent shippers.

1381. Shipping dairy cows. Hoard's Dairyman 59(4): 189-190. Feb. 13, 1920. 44.8 H65
Tells how to ship to avoid losses.

1382. Shipping meat animals safely. Amer. Cattle Prod. 18: 6. May 1937; 19: 8. June 1937. 49 P94
Not seen.

1383. Spellmeyer, A. L. Railroads neglect livestock. Calif. Cult. 62(2): 46. Jan. 12, 1924. 6 C12
Describes the waste in shrinkage of cattle during shipment because of neglect and improper handling by the railroads.

Hogs.

1384. About R.R. claims. Suggestions from the N.S.G.A. If you have claims present them for collection. Swine World 8(15): 11. Feb. 20, 1921. 46.8 Sw62
These are suggestions from the National Swine Growers Association, whose claim department is ready to present and follow up all claims of its members.

1385. Ashby, Robert Childers. Shrinkage of hogs from farm to market by truck and by rail. Ill. Agr. Expt. Sta. Bull. 388, pp. 558-576. Urbana, January 1933.
"Data presented in this bulletin show considerable variation in the shrinkage of hogs from farm to market, thus emphasizing the importance of feeders and shippers checking results under particular

conditions. The necessity of proving the accuracy of local scales cannot be too strongly urged.

"Comparing all truck hogs included in this study with all rail hogs, there was no essential difference in shrinkage, but the truck hauls averaged only about one-fifth the distance of the rail hauls. This comparison is based on 2,034 hogs in 59 consignments shipped an average of 129 miles by rail, and 1,252 hogs in 76 consignments shipped an average of 27 miles by truck..."

1386. Bjorka, Knute. How hogs are transported to market in the Corn Belt. Jour. Farm Econ. 18(4): 685-694. November 1936. 280.8 J822

This article describes, with statistical tables and graphs as illustrations, the replacement to a large extent of the railroad by the motor truck as a means for transporting livestock to market. Hogs are dealt with specifically.

1387. Bjorka, Knute. Shrinkage and dressing yields of hogs. U. S. Dept. Agr. Tech. Bull. 621, 22pp. Washington, D. C., 1938. 1 Ag84Te

A statistical appendix is included, pp. 16-21.

1388. Carroll, Joseph M. Bedding cars when shipping hogs. Swine World 7(21): 44. May 20, 1920. 46.8 Sw62

The proper bedding of cars, especially during the warm weather is described.

1389. Carroll, Joseph M. Hogs and motor trucks. Number transported to market by road continually increases. Swine World 8(2): 73. Aug. 5, 1920. 46.8 Sw62

The advantages of shipping hogs by motor truck are set forth.

1390. Carroll, Joseph M. Shipping hogs in hot weather. How to prevent losses when porkers are en route to market. Swine World 7(21): 42. May 20, 1920. 46.8 Sw62

Mr. Carroll says that the main essential of shipping hogs during the warm weather is to give them plenty of water.

1391. Cavanagh, J. R. Prevent losses of hogs in transit. Mo. State Bd. Agr. Monthly Bull. 18(1): 12-14. Jefferson City, January 1920. 2 M69B

"Proper feeding of hogs, care in handling while hauling to cars to avoid over-heating, adequate local stock pen accommodations, proper cleaning and bedding of cars, careful handling in the pens and at time of loading, and loading cars only as full as consistent with the safety of stock, are all factors contributing to the welfare of the hogs while en route."

1392. Cut marketing cost by careful shipping. Swine World 11(11): 9. June 1924. 46.8 Sw62

How to cut losses in shipping hogs.

1393. Dawson, Charles. Handling and shipping stock pigs. Should feeder shotes be bought at the stockyards markets, or direct from farms and ranches? Breeder's Gaz. 80(25): 921-922. Dec. 22, 1921. 49 B74

"While every control and precaution are exercised in handling stock pigs in the public stockyards of the middle West, this practice has not proved so safe nor successful as that of shipping non-vaccinated stock pigs direct from the ranges and farms of the West to feedlots in the Cornbelt, mainly from the fact that all live stock cars, stockyards and similar places are constantly infected with practically every known germ affecting domestic animals..."

1394. Downing, James E. Shipping hogs in hot weather. Breeder's Gaz. 80(4): 111-112. July 28, 1921. 49 B74

Describes the methods of loading and handling which should be practiced in hot weather to avoid loss.

1395. Ford, E. F. Hog mortality in hot weather. Railway Age 86(11): 627. Mar. 16, 1929. 288.8 R136

A test trip proved the fallacy of the idea that drenching hogs in transit is injurious.

1396. How to ship a hog by express. Calif. Cult. 54(3): 102. Jan. 17, 1920. 6 C12

Practical suggestions as to the construction and loading of crates are presented.

These suggestions were first made by G. W. Tucker in the Poland China Journal.

1397. Metcalfe, H. J. Ice saves hogs in transit. Breeder's Gaz. 80(2): 49. July 14, 1921. 49 B74

Emphasizes the importance of icing stock cars before loading for market, and tells of some losses of hogs when this was not done.

1398. [National livestock marketing association] We object! says National live stock marketing ass'n. to increased rates on stocker and feeder pigs. Swine World 21(10): 7. October 1934. 46.8 Sw62

The association has filed a brief setting forth these objections with the Interstate Commerce Commission.

1399. [Omaha live stock exchange] Hog weights vs. track weights. Commission men and railroads in dispute. Swine World 8(7): 43-44. Oct. 20. 1920. 46.8 Sw62

"By The Omaha Live Stock Exchange in the Daily Drovers Journal."

The controversy concerns the weighing of livestock for the purpose of assessing freight rates.

1400. Robison, W. L. Losses in shipment of hogs. Pennsylvania Stockman and Farmer 51(35): 739. Nov. 12, 1927. 6 N21

Summarizes the findings of a study on the causes of death and cripple losses in shipments of hogs as reported by J. R. Wiley of the Indiana Experiment Station on the occasion of the annual swine day of the station.

1401. Shepperd, John Henry. Shipping the pigs - what size car? Managing about minimum weights, charges and overcharges. Dakota Farmer 47(20): 843, 879. Oct. 15, 1927. 6 D14

1402. Smith, W. H. When hogs go to market. Proper care in shipping will prevent loss from death in transit. Country Gent. 85(22): 11, 34. May 29, 1920. 6 C833
Loading rules which will prevent loss are discussed.

1403. Standard Poland China record association. About shipping: report of the committee on intra and interstate shipment of swine. Swine World 8(13): 24-28. Jan. 20, 1921. 46.8 SW62

1404. Wiley, James R. Death and crippled losses in shipping hogs to market. Ind. Agr. Expt. Sta. Bull. 318, 32pp. Lafayette, 1927.
From 85,000 to 105,000 hogs die annually in transit from local loading points to the terminal live stock markets while 140,000 to 175,000 more are classed as crippled. Death and crippled losses average about $5.00 for every carload (70 hogs). The total loss on the commercial hog crop is from three to three and one-half million a year.
Recommended practices in shipping hogs to avoid such losses are listed.

1405. Wiley, James R. Factors affecting shrinkage in shipping hogs by rail. Ind. Agr. Expt. Sta. Bull. 358, 30pp. Lafayette, February 1932.
In two samples of data, one covering a period of five years from 1925 to 1929, inclusive, was obtained from the Producers' Commission Association at the Indianapolis market; while the other covered 4884 straight carloads of hogs and 1323 mixed loads of hogs with other livestock. Shrinkage was calculated upon the weight taken at a local railroad loading point and that at which the hogs were sold to the buyer at the central market.

1406. Wiley, James R. Motor transportation of hogs to the Indianapolis market. Ind. Agr. Expt. Sta. Bull. 337, 30pp. Lafayette, March 1930.
The rapid increase in the trucking of hogs is described and discussion is included of seasonal variation in trucking hogs; death and crippled losses; trucking charges to the Indianapolis market (including a statistical table); average charges for trucking; short-haul charges; truck versus rail transportation costs; and convenience of the truck.

1407. Wilson, Homer A. Stock hogs; their purchase and care, or profit versus loss. Mo. State Bd. Agr. Monthly Bull. v. 20, no. 3, 23pp. Jefferson City, March 1922. 2 M69B
Intrastate and interstate regulations of the Missouri State Board of Agriculture on the shipping or moving of hogs are included.

1408. Zeller, J. H. Do your shipping crates make friends. Swine World 20(11): 5. August 1933. 46.8 Sw62
The proper crating of hogs is described.

Horses

1409. Pond, Wilf P. How horses travel. Famous thoroughbreds supplied with every convenience in Pullman trucks de luxe. Field Illus. 34(2): 20-21, 48. February 1934. 42.8 Sp6

1410. Wentworth, George E. Freight rates on horses. Breeder's Gaz. 79(24): 1071. June 16, 1921. 49 B74
Presents the arguments for a reduction of freight rates on horses, which were put before the Rate Committee of the Central Freight Association, by a committee of horsemen representing all of the Western markets and most of the Eastern.

Sheep, Lambs, and Wool

1411. Angell, George N. Loading and shipping fat lambs. Breeder's Gaz. 88(7): 153. Aug. 13, 1925. 49 B74
Describes the loading and shipping of Washington State lambs for the eastern markets.

1412. Blaine, Charles E. Freight rate affairs. Natl. Wool Grower 27(5): 25-26. May 1937. 45.8 N21N
Interstate Commerce Commission decisions and proposed legislation of interest to the wool producer are listed and discussed.

1413. The case for lower freight rates on wool. Natl. Wool Grower 13(6): 19-20, 41. June 1923. 45.8 N21N
Describes hearings on the Interstate Commerce Commission case, no. 14787 "Wool Rates Investigation", which were concluded in Albuquerque on May 7.

1414. Leveck, H. H., and Buchanan, D. S. Sheep production in Mississippi. Miss. Agr. Expt. Sta. Bull. 260, 36pp. A. and M. College, 1928.
Helpful references, p. 36.
Marketing and shipping lambs, and cooperative shipments, pp. 22-23.

1415. Lewis, George M. An analysis of shipments of Texas sheep and goats. Tex. Univ. Bur. Business Research, Research Monog. 7, 127pp. Austin, 1930. 280.9 T312 no. 7
Part I, Movement of Sheep, contains Analysis of shipments of sheep within, from and to Texas, 1923 to 1928; Analysis of shipments of sheep by livestock districts, 1923 to 1928.
Part II, Movement of Goats, contains Analysis of shipments of goats to, within, and from Texas, 1923-1928.

1416. McLean, Donald. The Idaho wool growers association's report on lamb shipping facilities. Natl. Wool Grower 16(7): 33, 40-41. July 1926. 45.8 N21N

This is a report on train service and railroad feeding accommodations.

1417. National wool growers association. Losses and injuries in shipping lambs. Natl. Wool Grower 26(4): 17-18. April 1936. 45.8 N21N

According to a survey made by the National Live Stock Loss Prevention Board, the loss from injury to lambs in transit amounts to 46 cents per lamb injured or more than two cents for every lamb shipped.

1418. National wool growers association. Lower freight rates on sheep. Natl. Wool Grower 21(8): 7. August 1931. 45.8 N21N

"A material reduction in freight rates on sheep in most of the territory west of Chicago is called for in a decision of the Interstate Commerce Commission, dated June 8, 1931.

A table shows old and new charges per car from representative Western points to six markets (Chicago, Omaha, Kansas City, Denver, San Francisco and Portland).

1419. National wool growers association. More about the packers and the change-of-ownership rule. Natl. Wool Grower 22(10): 14-15. October 1932. 45.8 N21N

This is the second instalment of the correspondence between the National Wool Growers Association and the packers on lamb prices, change-of-ownership and other matters.

1420. National wool growers association. The new wool freight rates. Natl. Wool Grower 14(8): 23-24. August 1924. 45.8 N21N

"An annual saving of $300,000 per year for wool growers of range states is secured through the new wool freight rates which the Interstate Commerce Commission has ordered to be put into effect by October 23, 1924."

1421. National wool growers association. Ocean freight rates on wool. Natl. Wool Grower 24(5): 8. May 1934. 45.8 N21N

Gives charges applied to wool forwarded to Boston and other Atlantic Coast points from Seattle, Portland, Tacoma, San Francisco and Los Angeles by the American-Hawaiian Steamship Company.

1422. National wool growers association. Packers' views of market rules and lamb prices. Natl. Wool Grower 22(8): 15-19. August 1932. 45.8 N21N

Correspondence between the association and packers concerning lamb market conditions and "change-of-ownership."

1423. National wool growers association. Substitution on off-cars ordered for sheep loading. Natl. Wool Grower 26(11): 4-5. November 1936. 45.8 N21N

According to a decision of the Interstate Commerce Commission on October 22, 1936, "the carriers will be required to adhere to the rule of furnishing double the number of 36-foot single-deck cars if double-deck cars of the same length are ordered for sheep and not available...However, eleven single-deck 40-foot cars may now be substituted for an order of six 36-foot cars..."

1424. National wool growers association. Wool freight rates via rail and water under consideration. Natl. Wool Grower 15(4): 28. April 1925. 45.8 N21N

This was the question of issuing through bills of lading for shipments of wool by rail to Pacific Coast points and from there by steamship, which was under consideration by the Interstate Commerce Commission at its hearings in Portland, Oregon, from March 30 to April 3.

1425. Platt, H. V. Railroads and the wool growers. Natl. Wool Grower 11(4): 20-21. April 1921. 45.8 N21N

Mr. Platt, general manager, Oregon Short Line Railroad, discusses costs in transporting sheep and dressed carcasses, as justification for the rates charged by the railroads.

1426. Poole, James E. Lamb slaughter and transportation. Natl. Wool Grower 11(10): 15-16. October 1921. 45.8 N21N

Describes the problems of transporting dressed lamb from the West to eastern consumers. Lamb must be in the consumers hands within ten days after slaughter or go to the freezer. Transportation charges are high.

1427. Reed, H. E. Sheep production in Kansas. Kans. Agr. Expt. Sta. Bull. 240, 76pp. Manhattan, 1927.

Shipping to market, pp. 46-47.

1428. Sproat, Hugh. Delay in lamb shipping. Natl. Wool Grower 21(9): 47. September 1931. 45.8 N21N

Discusses and deplores the time lost in concentrating shipments for main line service and its damaging effect on the lambs.

1429. Washington State farm bureau. MacKenzie fights battle of western sheep and cattle men. Bur. Farmer (Wash. ed.) 3(10): 17. June 1928. 280.82 B89

Testimony of C. L. MacKenzie before the Interstate Commerce Commission at Chicago in the matter of freight rates on sheep.

Nuts

1430. U. S. Shipping board. Docket no. 24. American peanut corporation v. Merchants & Miners Transportation Company, Old Dominion Transportation Company, and Philadelphia & Norfolk Steamship Company. pp. 78-86. Washington, Govt. print. off., 1925. Pam. Collect. (Peanuts)
Rates on peanuts from Norfolk to Baltimore, Philadelphia, New York, and Boston were not shown to be unduly prejudicial, but certain of said rates were found to be unjust and unreasonable. Reasonable maximum rates for the future were prescribed.

1431. U. S. Tariff commission. Peanuts, not shelled and shelled. Report... to the President of the United States. Differences in costs of production of peanuts, not shelled and shelled, in the United States and in the principal competing country, as ascertained pursuant to the provisions of Section 315 of Title III of the tariff act of 1922. With appendix. Proclamation by the President. 88pp. Washington, U. S. Govt. print. off., 1929. 173 T17Pe
Cost of transportation of peanuts not shelled are discussed briefly on pp. 50-51; and of shelled peanuts on pp. 65-66.

Poultry and Eggs

General

1432. American institute of agriculture, Chicago, Ill. The transportation of poultry and eggs. Amer. Inst. Agr. Marketing Poultry and Eggs Lessons 7 and 8, 52pp. Chicago, 1923.
Lesson 7 includes information on the loading of eggs, billing the shipment, refrigeration, adequate service, claims for damage, how to secure adequate car supply, rates and rate rules, less than carload shipments, and express shipments.
Lesson 8, Shipping Poultry, lists methods of shipping, both live and dressed poultry, precautions to be taken, the checking of rental charges, and the deterioration of dressed poultry.

1433. Baird, William F. Truck body refrigeration. Various types and performance required with special reference to the use of carbon dioxide ice. U. S. Egg & Poultry Mag. 36(9): 18-23, 62, 64-65, 70-71. September 1930. 286.85 Eg3
Reprinted from Refrigerating Engineering.

1434. Jackson, W. F. Transportation and storage. Their part in the development of the present-day poultry and egg industry of the United States. Poultry, Garden and Home 39(2): 5, 18-19. April 1932. 47.8 R27
The development of the egg and poultry industry because of the use of the refrigerator car and the live poultry car is discussed.

1435. Jones, Harrison F. Transporting poultry & eggs. N. Y. Prod. Rev. 53(18): 854, 856, 858, 860, 862. Mar. 1, 1922. 286.85 N482
This is part of a paper presented before a short course for produce men at Iowa State College, Ames, Iowa.

1436. Lindsay, H. B. Insulation. U. S. Egg & Poultry Mag. 36(7): 44-49, 77. July 1930. 286.85 Eg3
Paper presented at the January 1930, Fact-Finding Conference.
This is a discussion of the need for refrigeration in the transportation of dressed poultry and eggs.

1437. White, W. T. S. Better packages - an open letter to package manufacturers. U. S. Egg & Poultry Mag. 40(7): 35, 63-64. July 1934. 286.85 Eg3
Commends the establishment of the "National Poultry & Dairy Products Package Improvement Bureau" and states its aims and purposes.

Eggs.

1438. American institute of agriculture, Chicago, Ill. How to pack eggs for shipment. Amer. Inst. Agr. Marketing Poultry and Eggs Lesson 5, 29pp. Chicago, 1923. 280.3 Am34P
Sources of transit damage to eggs are listed and methods of packing to avoid loss are described.

1439. American railway express co., Loss and damage dept. Right way to ship eggs. 7pp. [n.p., n.d.]
Not seen.

1440. Benner, Claude L., and Gabriel, Harry S. Marketing of Delaware eggs. Del. Agr. Expt. Sta. Bull. 150, 47pp. Newark, July 1927.
Damage to eggs resulting from improper packing, pp. 31-33; Transporting the eggs, pp. 33-34.

1441. Better packing needed. Amer. Poultry Advocate 29(5): 277-278. April 1921. 47.8 Am34
Better packing and handling of eggs are advocated and methods described.

1442. Clark, Alexis L., and Hundertmark, W. L. Packing eggs for market shipment. N. J. Dept. Agr. Circ. 32, 15pp. Trenton, 1920. 2 N46C
"Eggs are shipped in New Jersey by freight, express, parcel post, motor trucks and farm wagons. Their breakable character allows heavy losses under any but the most favorable shipping conditions. In reality the losses of New Jersey eggs shipped from one point to another within the state, in small lots, and changed from one car to another and from wagon to car and car to truck, are considerably greater than the losses of eggs shipped in carlots from sections as far away as the Pacific Coast..."

This breakage may be due to improper methods of packing or to careless and rough handling, especially at transfer points and terminals.

Rules for shipping by parcel post or fourth class mail, and American Railway Express Company's rules for shipping are included.

1443. Collins, James H. Making travel safe for eggs. Country Gent. 87(15): 23. May 20, 1922. 6 C833

How to pack and load eggs for shipment.

1444. Dallas, G. M. Damage to express eggs. N. Y. Prod. Rev. 63(10): 368-370. Jan. 5, 1927. 286.85 N482

This address under the title "Egg Packing and Loading" was delivered at an instructional course in freight claim prevention, held at New York, early in December.

1445. Donnelly, F. A. Egg weight standard case. N. Y. Prod. Rev. 65(12): 476. Jan. 18, 1928. 286.85 N482

Brief filed with Consolidation Classification Committee, New York, January 12, 1928.

1446. E. I. DuPont de Nemours & co., Publicity bureau. "Cellophane" cellulose film has definite value as a liner for egg cases recent tests indicate. E. I. du Pont de Nemours & Co., Publicity Bur. Agr. News Letter 4(6): 68-72, processed. June 1936. 6 D92

1447. E. I. Du Pont de Nemours & Co., Publicity bureau. The value of "cellophane" on egg cartons indicated by a series of laboratory tests. E. I. du Pont de Nemours & Co., Publicity Bur. Agr. News Letter 3(10): 7-9, processed. October 1935. 6 D92

1448. Equipment stepping up; railroad refrigeration competing for favor in the egg market. U. S. Egg & Poultry Mag. 35(1): 28-29, 76. January 1929. 286.85 Eg3

1449. Good packing good business practice. Wallaces' Farmer 46(13): 587. Apr. 1, 1921. 6 W15

A letter from the director of the educational service bureau of the American Railway Express Company on the proper packing of eggs.

1450. Green, Albert L. Egg damage in transit. N. Y. Prod. Rev. 59(8): 308, 310, 312. Dec. 24, 1924. 286.85 N482

Its extent and prevention as discussed at convention of American Warehousemen's Association.

1451. Green, Albert L. A progress report on egg breakage. N. Y. Prod. Rev. 66(18): 822-823. Aug. 29, 1928. 286.85 N482

Before the Chicago Claim Conference, Aug. 17, 1928, on reducing damage to eggs in transit.

1452. Green, Albert L. The seriousness of the egg claim situation. Railway Age 71(26): 1270. Dec. 24, 1921. 288.8 R136
For the first six months of 1921, the amount paid out in egg claims by the railroad companies averaged $90,000 a month and by the American Railway Express Company, $50,000 a month. Causes and remedies are discussed.

1453. Gusler, Gilbert. A smooth road to market. A proper pack, both in cases and cars, will reduce breakage losses. Amer. Poultry Jour. 60(12): 710, 742-745. December 1929. 47.8 Am32
By using approved methods of packing and loading, which are described here, loss from breakage of eggs in transit may be virtually eliminated.

1454. Hiscock, L. Harris. Eggs - and the parcel post. Amer. Poultry Advocate 34(3): 83. February 1925. 47.8 Am34
Mr. Hiscock has found that eggs shipped by parcel post bring a good retail price, which, he says, is really the significant part of the whole parcel post business. His methods of packing and containers used are described.

1455. Houghton, Vinol A. The lesson that Maine offers the poultry world. Amer. Poultry Jour. 55(4): 606. April 1924. 47.8 Am32
Discusses the large amount of breakage found in eggs shipped from Maine and offers suggestions as to its prevention.

1456. Huttar, John C. Selling eggs by mail. Cornell Countryman 28(4): 85-86. January 1931. 6 C81
Grading and packing for parcel post shipment is described.

1457. James, H. M. The transportation side of egg marketing. Amer. Poultry Advocate 32(6): 256. May 1924. 47.8 Am34
Mr. James explains some of the reasons why some egg producers never receive top prices for their egg shipments and concludes by saying:
"Shippers must for their own benefit recognize the needs of the market as to grading and quality and pack their product in the best possible manner to gain the best results."

1458. Kages, P. A. Packing settings of eggs for shipment. Amer. Poultry Advocate 29(2): 88. January 1921. 47.8 Am34; also in Amer. Poultry Jour. 52: 239. February 1921. 47.8 Am32

1459. Kennedy, D. P. When is it too warm to ship eggs without icing the cars? U. S. Egg & Poultry Mag. 39(2): 43, 64. February 1933. 286.85 Eg3
Insists that cars should be iced as early as March.

1460. Less eggs are damaged through use of cup flats. Railway Age 84(10): 579. Mar. 10, 1928. 288.8 R136
The decided advantage of cup flats over the ordinary strawboard

flats and excelsior pads in the shipment of cases of eggs was demonstrated in inspections made by the Western Weighing and Inspection Bureau at Chicago and by the Trunk Lines Freight Inspection Bureau at New York.

1461. Lininger, Fred Fouse. Express rates on eggs. N. Y. (Cornell) Agr. Col., Dept. Agr. Econ. and Farm Mangt. Farm Econ. no. 31, pp. 404-407. February 1926. 280.8 C812
Tables show comparison of first-class express rates and commodity rates on eggs from ten points in New York State to New York City; average commodity express rate on eggs from 25 points in New York State to New York City, with their index numbers; and average second-class express rate from 15 points in New York State to New York City, with index numbers.

1462. McKibben, B. F. Estimated weight of egg cases. N. Y. Prod. Rev. 65(14): 558. Feb. 1, 1928. 286.85 N482
Protest of Pacific States Butter, Egg, Cheese and Poultry Association against the increase in billing weight for eggs in standard 30 dozen cases as proposed under Subject 258, Classification Docket no. 32.

1463. Making transportation safe for eggs. Rural New Yorker 80(4640): 755. May 28, 1921. 6 R88
These facts were obtained from the American Railway Express Company as giving their side of the many troubles which occur in the express shipment of eggs.

1464. Mandeville, Paul. What price progress. The story of the cup flat. U. S. Egg & Poultry Mag. 35(5): 38-44. May 1929. 286.85 Eg3
The development of the standard package for transporting eggs.

1465. Mount, Harry A. When Humpty-Dumpty travels. Sci. Amer. 124(14): 265, 277-278. Apr. 2, 1921. 470 Sci25
A discussion of some of the causes of losses from breakage in the shipment of eggs and the old and the new in cardboard fiber egg carriers.

1466. Pennington, Mary E. Problems in egg packages. Amer. Creamery 79: 884, 886. Apr. 17, 1935. 286.85 N482
"An address at the last Fact Finding Conference of Institute of American Poultry Industries."

1467. Pilcher, Lewis. Egg packing and loading. U. S. Egg & Poultry Mag. 39(5): 37-39, 63. May 1933. 286.85 Eg3; also in Amer. Creamery 76: 62. May 10, 1933. 286.85 N482
Rules for satisfactory loading of cars are included.

1468. Pound, George H. The handling and packing of market eggs. N. J. Agr. Expt. Sta. Hints to Poultrymen v. 9, no. 3, 4pp. New Brunswick, December 1920.
Methods of packing eggs to secure best results are given.

1469. Powers, George H. Construction and packing of an egg case. U. S. Dept. Agr. Leaflet 64, 8pp. Washington, D. C., 1930. 1 Ag84L

1470. Railway express agency, inc., Department of public relations. Getting your eggs to market. How grading and correct packing will prevent breakage and increase your returns. folder. New York, 1929. Pam. Collect. 47 R

1471. Redfearn, B. W. Proper egg container for the transportation of eggs, from the viewpoint of both carrier and shipper. New York Prod. Rev. 55(23): 1122. Apr. 4, 1923. 286.85 N482
Address before National Association of Egg Case and Filler Manufacturers, Memphis, Tenn.

1472. Rust, Harry A. Economic importance of the use of proper packing materials for transporting and marketing of eggs. U. S. Egg & Poultry Mag. 41(8): 38-39, 58-60. August 1935. 286.85 Eg3

1473. Sharp, Paul F., Stewart, George F., and Huttar, J. C. Effect of packing materials on the flavor of storage eggs. N. Y. (Cornell) Agr. Expt. Sta. Mem. 189, 26pp. Ithaca, May 1936.
References, p. 26.
"...No sweeping statement can be made covering the effect of any particular type of pulp used in filler manufacture. As a rule, however, the spruce fillers imparted the least flavor to the eggs, and the straw-board fillers imparted the most..." - Discussion, p. 24.

1474. Slocum, Rob R. Methods of packing eggs and of buffing and bracing cases of eggs in carload shipments. U. S. Dept. Agr. Dept. Circ. 391, 14pp. Washington, D. C., August 1926. 1 Ag84D
Tests were made to compare the merits of eight different methods of packing and the merits of straw and hay buffing and wood bracing for loading purposes. These are the methods in commercial use and provided for in the consolidated freight classification.

1475. Snyder, Clara Gebhard. Some suggestions for package improvement. U. S. Egg & Poultry Mag. 40(10): 49-51. October 1934. 286.85 Eg3
Package improvement for eggs is discussed.

1476. U. S. Department of agriculture, Bureau of markets. Egg breakage greatly reduced by better packing. Use of stronger containers and specially built refrigerator cars other main factors. U. S. Dept. Agr. Bur. Markets Market Reporter 3(14): 209, 217. Apr. 2, 1921. 1 M34M

1477. U. S. Tariff commission. Eggs and egg products. Report...to the President of the United States. Differences in costs of production of eggs and egg products in the United States and in the principal competing country, as ascertained pursuant to the provisions of section 315 of title iii of the Tariff act of 1922. 36pp. Washington, Govt. print. off., 1929. 173 T17Eg

Transportation, pp. 29-32, includes transportation and other charges from Shanghai to New York; Transportation and other charges from domestic breaking plants to New York (frozen eggs).

1478. Wurtzel, S. S. The question of re-used packages for the shipment of eggs - The matter of shell porosity and contamination - Further investigations in process. Amer. Creamery 78: 886, 888. Oct. 17, 1934. 286.85 N482

Address before convention of National Poultry, Butter and Egg Association.

Poultry

1479. American railway express company, Loss and damage dept. Live poultry; how to ship it by express. 4pp. [n.p., n.d.]

Not seen.

1480. Baby chick parcel post rates increased. Rel. Poultry Jour. 32(3): 292. May 1925. 47.8 R27

A 25-cent special-handling postage charge was required on all parcels containing day-old chicks after Apr. 15, 1925, according to regulations issued by the Postmaster General.

1481. Bomberger, George E. Baby chicks now travel in paper "Pullmans." Amer. Poultry Advocate 36(1): 6. December 1926. 47.8 Am34

A uniform standard of sizes for poultry boxes for carrying 25, 50, or 100 chicks was adopted by national hatchery and poultry associations, after extended investigation and study. These boxes are described.

1482. Boyer, Michael K. Shipping poultry to market. Amer. Poultry Advocate 29(12): 563-564. November 1921. 47.8 Am34

Containers for shipping and methods of packing are described for dressed poultry.

1483. Connecticut. Laws, statutes, etc. An act concerning the shipment of live poultry; rules and regulations governing poultry licenses. Conn. State Dept. Agr. Bull. 23, 7pp. Hartford, July 1933. 2 C76B

1484. Glover, W. Irving. Shipments of live day-old chicks by parcel post. Rel. Poultry Jour. 31(1): 95-96. March 1924. 47.8 R27

Includes instructions as to methods of shipping.

1485. Hollenbeck, A. D. Method of shipment of live poultry to the New York market. U. S. Egg & Poultry Mag. 41(9): 28-29, 61. September 1935. 286.85 Eg3

Trucking of live poultry to the New York market has steadily encroached upon the other forms of transportation - freight and express - during the six-year period 1929-1934.

1486. Jackson, Homer W. What parcel post is doing for the baby chick industry. Rel. Poultry Jour. 35(11): 622, 648, 650. January 1929. 47.8 R27

1487. Jackson, W. F. Backbone of our billion dollar poultry industry. Without the great purchasing, classification, storage, shipping and sales achievements told about and illustrated in this notable series of articles, there could be no such industry. Poultry, Garden and Home 39(1): 8-9, 22-23. March 1932. 47.8 R27

1488. Lapp, William H. Marketing live poultry. Amer. Poultry Jour. 57(12): 933, 997-998. December 1926. 47.8 Am32

Mr. Lapp states that "A study of the history of poultry marketing reveals the fact that shipping live poultry in cars made expressly for that purpose has had an important part in developing our poultry industry in this country..."

These cars are described.

1489. McNeill, C. E. The live poultry market since the advent of trucks. U. S. Egg & Poultry Mag. 40(6): 22-23, 52, 54, 56. June 1934. 286.85 Eg3

Address before the 7th annual Fact Finding Conference of the Institute of American Poultry Industries, Chicago, Feb. 27, 1934.

Discusses in relation to the Chicago market: express vs. trucks, the peddler and itinerant trucker, truck arrival statistics, etc.

1490. Peterson, Leroy. Cost of live poultry distribution. Amer. Creamery 79(3): 80, 94. Nov. 21, 1934. 286.85 N482

Address before National Association of Marketing Officials, Nov. 17th, 1934.

Discusses changes in methods of shipments live vs. dressed poultry, comparative costs, handling charges, etc.

1491. Port of New York authority. Preliminary report of deputy manager on union terminal for live poultry trade. 71pp. [New York] 1927. 280.3 P833Pr

In discussing the kind of terminal facilities required, discussion is included of the required capacity, unloading and cartage, coop supply, sanitation and policing. It is said that the type of trading determines the requirements.

The advantages of centralized facilities are listed. Estimated costs of union terminal operations are compared with present costs of terminal operations.

The location of the terminal in relation to accessibility, etc., is discussed, and descriptions of proposed sites in New York City are included.

1492. Sanks, Trevor. The feeding problem; practices in feeding while poultry is en route and at terminals in New York. N. Y. Prod. Rev. 57(6): 228. Dec. 12, 1923. 286.85 N482

1493. Shackelton, H. E. Adjustment problems of poultry cooperation in the depression periods - Finance and transportation. Amer. Inst. Coop. Amer. Coop. 1932: 319-327. Washington, D. C. 280.29 Am3A
In his summary, the author says: "...As regards transportation I have discussed some of the adjustments made or to be made as they relate to the rapid growth of trucking direct from producer to market; movement in various stages from producer to retailer, and the savings and far-reaching effects of improved packaging."

1494. Slade, D. D. Baby chicks, C. O. D. N. Y. Prod. Rev. 65(9): 356. Dec. 28, 1927. 286.85 N482
Tells how one Kentucky hatchery sells chicks C.O.D.

1495. Slocum, Rob R. Transportation of live poultry. Natl. Humane Rev. March 1928, pp. 20-22. Pam. Collect. (Poultry)
Humane packing and transporting of live poultry to market is discussed.

1496. Standardization of chick boxes. Amer. Poultry Advocate 36(5): 99, 103. April 1927. 47.8 Am34
Says that the most important question in regard to standardization at present is that of quality of chick boxes, which is still to be attained.

1497. Vandervort, A. E. Selecting and shipping fowls. Amer. Poultry Advocate 28(2): 82. January 1920. 47.8 Am34
Methods of shipping live poultry are described.

1498. Zimerman, M. K. Poultry by boat. Ohio Farmer 145(1): 28. Jan. 3, 1920. 6 Oh3
"Live poultry shippers in that section tributary to the Ohio River have recently been using river packets for the transportation of live poultry to up-river markets to a greater extent than formerly..."

Sugarcane

1499. Cane handling presents difficulties; Texas & Pacific increases efficiency in handling Louisiana traffic. Railway Age 87(26): 1479-1481. Dec. 28, 1929. 288.8 R136
Efficiency has been increased by a change in operating methods, by the preparation of special cars for use in hauling the cane, and by enlisting the co-operation of the shippers.

1500. Reuss, G. H. Hauling cane by wagon. La. Agr. Expt. Sta. Circ. 4, 16pp. Baton Rouge, August 1932.
"This study was undertaken in order to determine and measure the factors which influence the efficiency of...wagon hauling [from field to mill] both from the standpoint of cost per ton and of speed in loading and hauling..."

Tobacco

1501. Robert, Joseph Clarke. The tobacco kingdom. Plantation, market, and factory in Virginia and North Carolina, 1800-1860. 286pp. Durham, N. C., Duke university press, 1938. 281.369 R54
Bibliography, pp. 258-270.
Ch. IV. Transportation to Market.